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Asian and Pacific Developing Economies:

Performance and Issues — *Burnham O. Campbell*

Falling Commodity Prices: Implications for Asian and Pacific
Developing Countries — *Kedar N. Kohli and Ifzal Ali*

Energy and Economic Development: Experience and
Issues in Developing Asia — *Jayanta Madhab*

Rural Development in Asia:
Issues and Perspectives — *Satish C. Jha*

Foreign Direct Investment and Economic Growth in the
Asian and Pacific Region — *Pradumna B. Rana*

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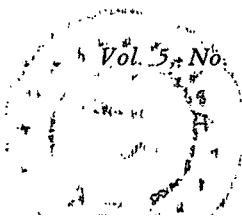
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P4618

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4332

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Asian and Pacific Developing Economies: Performance and Issues <i>Burnham O. Campbell</i>	1
Falling Commodity Prices: Implications for Asian and Pacific Developing Countries <i>Kedar N. Kohli and Ifzal Ali</i>	44
Energy and Economic Development: Experience and Issues in Developing Asia <i>Jayanta Madhab</i>	61
Rural Development in Asia: Issues and Perspectives <i>Satish C. Jha</i>	83
Foreign Direct Investment and Economic Growth in the Asian and Pacific Region <i>Pradumna B. Rana</i>	100

Asian and Pacific Developing Economies: Performance and Issues

Burnham O. Campbell*

The expansionary and inflationary world economy of the 1970s was brought about by the expansionary and inflationary financing, especially by the United States, of the first oil shock in 1973. The decision of the United States to offset rather than to accommodate the second oil shock in 1979 led to a new environment and set of economic problems for the developing economies, particularly in the Asian and Pacific region. Outward-looking development policies seemed a less attractive response to the oil shock mainly because the world recession brought about record levels of real interest rates, a stronger U.S. dollar, decelerating inflation and, for the developing countries, worsening terms of trade. Further, there was rising protectionism fueled by demographic changes and high levels of structural unemployment. Also, the U.S. budget deficit widened.

Most of the elements of this scenario continued in the initial phase of recovery from the oil shocks of the 1970s. However, in 1985, the situation faced by the Asian and Pacific developing countries began to change dramatically. The exchange value of the U.S. dollar in relation to the yen and most currencies of the European Economic Community (EEC) fell sharply. While this primarily helped the Asian Newly Industrializing Countries (NICs) to become more competitive, it created problems for developing countries in the region with debts denominated in non-dollar currencies. Both nominal and real interest rates also declined sharply beginning in 1985, though the latter remained far above their levels of the 1970s.

Then, in 1986, oil prices fell by more than 50 per cent. While this benefited most countries in the Asian and Pacific region, it caused problems for the oil exporters. It also caused some difficulties for countries which depended largely on workers' remittances from the Middle East oil-exporting countries for financing their external resource gaps. In addition, commodity prices continued to decline, following a two-year increase during the recovery. This adversely affected the predominantly agricultural and mineral-based economies outside East Asia, and also the region's oil exporters and Singapore, the latter being in many ways dependent on the fortunes of the oil exporters.

* Professor of Economics, University of Hawaii.

2 *Asian Development Review*

Nominal growth in world trade continued to fall, after a year of growth in 1984, and the terms of trade continued to worsen for developing countries after stabilizing during the recession. Inflation rates fell further, to very low levels in the industrial countries. Real growth rates remained lower in the major developed countries than during the 1970s, except for a spurt in 1984.

The U.S. budget deficit continued to grow, and finally turned the United States into a net debtor. The U.S. trade deficit grew to a record size and was accompanied by capital outflow — to directly or indirectly support the growing U.S. debt — from many developing countries. The growing trade deficit added to pressures for increased protection in the United States, which in turn took increasingly sophisticated (i.e., non-tariff barrier) expression. The United States and the EEC countries became more involved in their agricultural trade war, and this had negative effects on many developing countries, including those in the Asian and Pacific region. The People's Republic of China became increasingly active in international trade and in the competition for financial resources during the early 1980s.

The 1975-1985 period was characterized by a wide variation in the external circumstances facing the Asian and Pacific developing countries. Their performance and response also varied. In the next section of this article, several measures of performance are examined. In view of the growing doubt about the merits and appropriateness of outward-looking policies, the performance of countries pursuing export promotion policies relative to those pursuing more inward-looking policies is compared.¹ In the subsequent section, the policy responses of the countries to the new and varied challenges are discussed. The final section sums up the major conclusions drawn from the country and regional performance and the tentative generalizations that could be made from the available evidence. The article concludes with a brief look at some key issues which the Asian and Pacific developing countries face and are likely to face in the future.

Economic Performance: Record and Assessment

Increases in productivity result from the accumulation of physical and human capital relative to the labor force, from a more efficient use of available resources (including but not limited to increased specialization through trade), from the attainment of economies of scale both domestically and internationally, and from the introduction of new techniques of production and new products. Growth in total output also depends on these factors and the rate of growth of the labor force. Thus, the former does not necessarily imply increased productivity or higher living standards. In explaining growth, most attention has been focused

1. For purposes of analysis in this discussion, the countries are grouped into five categories. These are Newly Industrializing, Southeast Asia, South Asia, Socialist Economies and South Pacific. However, only those countries for which relevant data are available are included (see Table 1 for country groups).

on factors responsible for increasing the efficiency of resource allocation and achieving scale economies and technical progress. Recently, however, the complementary role of physical and human capital accumulation has been given greater emphasis.

Many of the determinants of total or per capita growth are domestic in origin. This is particularly true of the mobilization of domestic savings and of the institutional or organizational constraints on production possibilities and the efficient use of resources. Others, including the net availability of foreign savings, the possibilities for international specialization, the transfer of technology, the transfer of international management techniques and production standards, and the terms of trade have a large and sometimes dominant international component and are directly affected by changes in the world economic environment. Also in this category are changes in international demand and in the terms on which foreign savings are available, but not the response to these changes. Finally, demographic relations depend largely not only on past domestic policies, income levels and cultural institutions, but also on past and current conditions for international migration.

Total and Per Capita Growth. The growth performance of the Asian and Pacific developing countries is shown in Table 1. Except for the Republic of Korea, during 1982-1986, the NICs did not perform to their levels of the 1970s. However, the NICs maintained higher economic growth rates than all the other countries. Hong Kong, Republic of Korea and Taiwan did particularly well in 1986 after a relatively low-level performance in 1985. It should be noted that all three were major beneficiaries of the appreciation of the yen and the fall in oil prices.

The decline in the growth performance of the Southeast Asian countries was even greater than that of the NICs. During the 1982-1984 recession, Malaysia and Thailand had a growth rate about one-half of that achieved during the 1970s. In general, the relative position of the Southeast Asian countries deteriorated the most during the difficult 1980s. This was, of course, especially true of the Philippines, whose growth performance was the worst in the region during the 1980s. The most likely explanation for its poor performance relative to the other Southeast Asian countries was its relatively unfavorable domestic policies which were exacerbated by growing political unrest. Indonesia's growth performance during 1985 and 1986 was also rather poor due to a rapid drop in its oil revenues. While both Indonesia and Malaysia appear to be taking steps that will ultimately improve their growth performance, there are no quick solutions.

As a result of the developments discussed above and the greater cyclical stability of the South Asian countries, these countries overtook the Southeast Asian countries in growth performance during the last five years. Also, they considerably narrowed the gap between their growth performance and that of the NICs. Since they depend less on trade, they were less susceptible to the slowdown in trade during the 1980s. Pakistan was further helped by its special

Table 1: Growth Performance of Selected Asian and Pacific Developing Economies

	Real GDP Growth Rates (%)				Change 1977-1981 to 1982-1985	Real Per Capita GDP Growth Rate (%)		Per Capita GDP 1985 (\$)	Growth Rate Per Capita/ Total Growth Rate Average for	
	1972-1976	1977-1981	1982-1985	1986		1973-1983	1983-1984		1973-1983	1983-1984
Newly Industrializing										
Hong Kong	8.6	10.8	4.9	8.7	-5.9	6.6	7.9	6,640	0.68	1.00
Korea, Republic of	9.7	6.5	7.6	11.4	1.1	5.4	5.9	2,180	0.67	0.60
Singapore	8.6	9.2	5.2	1.9	-4.0	6.6	7.1	7,420	0.73	0.88
Taiwan	9.1	9.0	6.1	9.9	-2.9	..	..	3,050	..	..
Southeast Asia										
Indonesia	7.8	8.1	3.5	2.0	-4.6	4.4	2.9	530	0.55	0.58
Malaysia	8.4	7.7	5.4	0.5	-2.2	4.6	3.6	2,050	0.55	0.51
Philippines	6.6	5.4	-1.4	0.2	-6.8	2.5	-7.9	600	0.38	0.30
Thailand	7.1	7.1	5.0	3.8	-2.1	4.0	5.1	830	0.56	0.85
South Asia										
Bangladesh	..	4.1	2.9	5.2	-1.1	2.9	0.6	150	..	0.15
India	2.9	4.5	4.8	5.0	0.3	1.9	2.1	250	0.51	0.38
Nepal	3.4	3.2	3.2	4.2	-	0.4	4.8	160	0.12	..
Pakistan	4.2	6.7	6.1	7.2	-0.6	3.1	2.1	380	0.56	0.38
Sri Lanka	4.8	5.7	5.0	4.0	-0.7	3.4	3.9	370	0.63	0.79
Socialist Economies										
Burma	2.9	6.4	5.5	3.7	-0.9	3.8	2.5	190	0.81	0.50
China, People's Rep. of	..	6.8	10.6 ^a		3.8 ^a	4.6	12.7	310	0.68	..
South Pacific										
Fiji	5.2	4.5	0.2	7.0	-4.3	1.1	5.2	1,710	0.22	..
Papua New Guinea	1.0 ^b	1.9	1.8	2.5	-0.1	-0.8	2.4	710	-0.55	..

.. = not available. a 1984-1986.

— = nil. b 1974-1976.

Sources: Asian Development Bank, *Key Indicators of Developing Member Countries of ADB* (Manila, July 1986); World Bank, *World Bank Atlas* (Washington D.C., 1986); and Asian Development Bank, *Annual Report 1986*.

relationship with Iran, a market that grew for political reasons while others declined. India was insulated by the relatively large share of its trade with the socialist countries, apart from the small share of trade in its total output. Finally, there was a tendency toward greater economic liberalization in several South Asian countries, though this change has been too recent for a substantive response to have occurred. Unfortunately, in Sri Lanka, any positive effect of reforms was offset by the negative impact of growing political difficulties.

Among the "socialist economies", the only benchmark data available for the People's Republic of China are for the period 1977-1981; a reporting gap then occurs for the years 1982 and 1983. Nevertheless, the growth reported for 1984 and 1985 (more than 12 per cent in each year) was impressive, though it slowed during 1986. The performance of Burma during the 1980s was generally satisfactory. In the South Pacific, the performance of Fiji and Papua New Guinea was relatively weak.

Based on the recent greater stability and relative improvement in the position of the South Asian countries and the socialist economies, some observers have concluded that the opportunities for export promotion policies that led to the generally superior growth performance of the NICs during the 1970s are disappearing. Because the countries which now show relatively better growth performance have been more inward-looking and, in some instances, more inclined to central planning, some of these observers conclude that import substitution or the adoption of an economic plan rather than the use of the market could well be more acceptable than hitherto considered.

However, this argument ignores the trade push and economic reforms of the People's Republic of China, the increasing emphasis on exports by Pakistan and Sri Lanka and the fact that the improved performance of the South Asian countries was at least partly due to increased liberalization or the promise of increased liberalization. Further, it ignores the fact that the NICs, except for Singapore, *still* performed better than the other countries in the region during the 1980s. The performance of Singapore was due more to the recent poor performance of its neighbors and its government interventions than to its trade policies. In any event, it is not very useful to draw conclusions from a five-year period.

The argument also does not hold in comparisons between the South Asian and Southeast Asian countries where the special circumstances leading to the collapse of oil prices dominated the experience of Indonesia and Malaysia. Further, Malaysia maintained relatively rapid growth during 1982-1985, and political uncertainties dominated the experience of the Philippines. Regardless of their trade policies, Indonesia and Malaysia would have faced problems, and the experience of the Philippines demonstrates that increased openness cannot be of much benefit in a non-competitive environment. In fact, Thailand, the only Southeast Asian country actively pursuing both greater trade and internal competition, performed better in terms of growth than any South Asian country, except Pakistan.

To sum up, a comparison of per capita incomes during 1965-1985 among the countries and of the growth rates of per capita real incomes, even during the partly recessionary 1983-1984 period (see Table 1), suggests that if it is possible to equate the openness of NICs (and of Thailand) with the import substitution and/or economic planning of South Asian countries, then, over the long run, openness and the market tend to promote more rapid growth than inward-looking options. During 1973-1984, the South Asian countries, particularly India and Nepal, lagged far behind the NICs and the Southeast Asian countries, except for the Philippines. The gap between the Southeast Asian and South Asian countries narrowed during 1983-1984, with Nepal's performance especially noteworthy. Nevertheless, the NICs progressed further. It is likely that the gap between South Asia and Southeast Asia has narrowed further since 1983-1984 because of the relative decline in the growth rates of Southeast Asian countries during the past two years. The available data for the South Pacific countries indicate that the per capita growth of Papua New Guinea was negative during 1973-1983.

An indication of the relative significance of total growth and population growth is given by the ratio of the per capita gross national product (GNP) growth rate to the total GNP growth rate. The lower this ratio, the more rapidly an economy must expand to achieve a certain level of growth performance. The only countries with high total GNP and per capita GNP growth rates during 1975-1985 were Hong Kong and Singapore, though the Republic of Korea and Malaysia achieved relatively rapid total GNP growth rates with somewhat lower per capita GNP growth rates. Countries achieving relatively low per capita GNP growth rates for their total GNP growth rates for the period 1973-1983 were the Philippines and Pakistan in the high-medium growth class, Fiji, India and Nepal in the low-medium growth class, and Papua New Guinea in the low-growth class.

Inflation Rates. In addition to real growth, the ability to control inflation is often used to evaluate economic performance. Outside of their distributional and allocative costs, high (i.e., double-digit and above) inflation rates can be a sign that difficult issues (such as long-run political malaise) are not being faced. Moreover, when inflation rates are high and nominal exchange rates are controlled, more pressure is put on economic managers to keep the real exchange rate competitive.

What, then, can be said about the record of Asian and Pacific developing countries regarding inflation rates? Inflation rates in the region generally declined between the 1970s and 1980s (see Table 2). The exception was the Philippines, though the decline was slight or nearly nil in Hong Kong, India, Nepal and Sri Lanka.

The decline was greatest for the NICs (other than Hong Kong). This was especially impressive in the Republic of Korea and Taiwan since both maintained relatively high GNP growth rates while bringing their inflation rates well below

Table 2: **Inflation Rates (Consumer Price Index)**
(Per cent per annum)

	1972-1976	1977-1981	1982-1985	Second Quarter 1986	Change 1977-1981 to 1982-1985
Newly Industrializing					
Hong Kong	8.7	10.6	8.1	2.9 ^a	-2.5
Korea, Republic of	16.1	18.5	3.9	2.6	-14.6
Singapore	8.9	5.8	2.1	-1.1	-3.7
Taiwan	13.3	11.6	1.1	..	-10.5
Southeast Asia					
Indonesia	23.4	13.0	9.1	4.7 ^a	-3.9
Malaysia	7.6	5.9	3.4	0.8	-2.5
Philippines	14.4	12.9	23.4	1.1 ^a	10.5
Thailand	9.6	12.2	3.1	2.1	-9.1
South Asia					
Bangladesh	29.7	11.2	10.8	9.6	-0.4
India	9.9	8.4	8.4	8.2	—
Nepal	9.2	9.6	8.8	19.5	-0.8
Pakistan	16.6	10.0	6.1	3.8	-3.9
Sri Lanka	7.2	13.6	10.7	6.1	-2.9
Socialist Economies					
Burma	23.0	—	5.7	4.8	5.7
China, People's Rep. of	..	3.1	2.2 ^b	..	-0.9
South Pacific					
Fiji	11.8	9.3	5.9	1.3 ^a	-3.4
Papua New Guinea	10.9	7.5	6.1	5.2 ^a	-1.4

.. = not available.

— = nil.

^a Third quarter of 1986.

^b 1982-1984.

Sources: Asian Development Bank, *Key Indicators of Developing Member Countries of ADB* (Manila, July 1986); and International Monetary Fund, *International Financial Statistics* (Washington, D.C., January 1987).

the levels of the 1970s. It should be noted that the decline in Singapore's inflation rate was matched by a fall in real income. Except for the Philippines, the Southeast Asian countries reduced their inflation rates during 1982-1985, though they did not perform as well as the NICs. Thailand, however, achieved the lowest inflation rate in its group and the inflation rate of the Philippines reached a record level in the NIC and Southeast Asian groups. Except for the relatively high rates of inflation in Bangladesh, the inflation rates in the South Asian countries were roughly comparable with those of the NICs and the Southeast Asian countries, and were actually lower than the latter two groups during the second half of the 1970s. There was also less divergence in the inflation rates among the South Asian countries than among countries in the other groups.

Nevertheless, large inter-regional differences appeared in 1982-1985 when inflation rates remained much higher in South Asia than in the other country groups (excluding the Philippines). The reason for this would seem to be the relatively greater emphasis placed by the South Asian countries on import substitution. Moreover, in the past, these countries also placed less emphasis on trade expansion and on borrowing as a means of financing growth. Thus, when world trade worsened, the South Asian countries generally did not experience the same pressure to remain competitive as the NICs and the Southeast Asian countries. Therefore, they could afford to pursue the inflationary policies as in the past.

It is interesting to note that Pakistan was the only South Asian country which achieved a major reduction in its inflation rate during this period, and that it emphasized export growth the most during the 1970s (see Tables 2 and 3). It also suffered the most from the decline in export growth during the 1980s. During the second half of the 1970s, Sri Lanka's political difficulties dominated its efforts to increase industrial exports. It was, therefore, relatively unsuccessful in controlling inflation during 1982-1985. In the 1970s, both Fiji and Papua New Guinea had rather low rates of inflation.

Among the socialist economies, Burma's inflation rate varied widely, and contrary to general experience, increased during the 1980s. The People's Republic of China had the lowest rate of inflation in the region during the second half of the 1970s, and an even lower rate during 1982-1985. It should be remembered, however, that inflation rates have a different meaning in economies in which most prices are set by the state. Therefore, using the inflation rate as a measure of economic performance for these countries could well be misleading.

Inflation rates during 1986 fell further in all the developing countries in the region, except in Nepal. They were especially low for the NICs and impressively lower than economic growth rates in the region. Thailand and Pakistan achieved economic growth rates higher than their inflation rates during 1986. Due to its efforts in controlling the money supply, the decline in the inflation rate in the Philippines was the largest, and the level reached was one of the lowest in the region. The decline in the inflation rates in the South Asian countries in 1986 was relatively the smallest in the region.

Table 3: Export Performance of Selected Asian and Pacific Developing Economies

	Export		Import		Exports Per Capita (\$)	Growth in Exports		Change (\$) 1972-1976/1977-1981			
	Growth Rate Change to	1977-1981	Growth Rate Change to	1977-1981		Per Capita (\$)	1972-1976 to				
									1982-1985	1982-1985	
											1977-1981
Growth Rate in Exports (% per annum)		1982-1985		1977-1981		1982-1985		1977-1981/1982-1985			
Newly Industrializing											
Hong Kong	21	9	17	-12	-18	4,750	237	149	-88		
Korea, Republic of	23	10	15	-13	-20	653	322	161	-161		
Singapore	27	2	-0.4	-25	-26	8,894	289	146	-143		
Taiwan	23	9	29	-14	-24	1,444	275	157	-118		
Southeast Asia											
Indonesia	22	-4	-20	-26	-23	138 ^a	263	122 ^a	-141		
Malaysia	19	7	-9	-12	-19	952 ^a	237	130 ^a	-107		
Philippines	18	-5	3	-23	-28	94	186	99	-87		
Thailand	19	-1	24	-20	-20	140	230	121	-109		
South Asia											
Bangladesh	15	6	-32	-9	-24	9	200	113	-87		
India	9	2	8	-7	-24	13 ^a	183	118 ^a	-65		
Nepal	13	9	-3	-4	-13	8	117	107	-10		
Pakistan	21	-3	6	-24	-17	29	179	116	-63		
Sri Lanka	14	6	-7	-8	-27	79	181	121	-60		
Socialist Economies											
Burma	22	3	-43	-19	4	10	183	91	-92		
China, People's Rep. of	26	6	13	-20	-7	24	200	168	-32		
South Pacific											
Fiji	21	-7	17	-28	-27	372	191	88	-103		
Papua New Guinea	11	2	-2	-9	-27 ^a	256 ^a	160	89 ^a	-71		

^a 1982/1984.Sources: Asian Development Bank, *Key Indicators of Developing Member Countries of ADB* (Manila, July 1986); and Asian Development Bank, *Annual Report 1986*.

Growth in Exports. In relation to the experience of the 1970s, the growth rate of exports fell in all the developing countries in the region during 1982-1985 (see Table 3). The world recession and then the relatively slow recovery, especially in world trade, caused a decline in the export growth rates of nearly all the countries, with export growth rates in three of the Southeast Asian countries falling to negative levels.

Since they had lower export growth rates during the 1970s, the decline in the growth rates of the South Asian countries was generally small. In fact, for the first time, in 1982-1985, South Asian exports as a group grew more rapidly than those of the Southeast Asian countries. It is significant, however, that the NICs maintained the highest export growth rates in the region during the period. The amount of the decline in the export growth rates of Burma and the People's Republic of China was similar to the decline in the NICs and the Southeast Asian countries. However, unlike most of the Southeast Asian countries, both Burma and the People's Republic of China were able to maintain positive export growth rates during this period. Further, the export growth rate of the People's Republic of China remained several times that of India.

For Indonesia, Pakistan, Philippines, Thailand and Fiji, the commodity price decline, their greater susceptibility to both cyclical and protectionist pressures, and their slower adjustment in terms of domestic policy help to explain their negative growth rates in exports during 1982-1985. For similar reasons, Papua New Guinea also had very low export growth rates during 1982-1985, as did Singapore because of the problems experienced by its neighbors and major trading partners. While India's export growth rates were at low levels during 1977-1981, it had very low export growth rates during 1982-1985.

The countries which experienced the most rapid export growth were Hong Kong, Republic of Korea, Nepal and Taiwan. The next group included Bangladesh, People's Republic of China, Malaysia and Sri Lanka. With the possible exception of Malaysia, these countries and Nepal from the first group were just beginning to take advantage of the Multi-Fibre Arrangement and opportunities for garment exports during the 1980s.

A comparison, where possible, between export growth during 1985 — the worst year for most countries during the 1980s — and 1986 gives some indication of the likely effects of the fall in oil prices and appreciation of the yen. The countries with a strong or increasing outward orientation (Hong Kong, Republic of Korea, Pakistan, Taiwan and Thailand) benefited from these changes in that their export growth rates reached peak levels during the 1980s. Indonesia and probably Malaysia were adversely affected.

While the decline in the export growth rate of Singapore has halted, it will likely continue to be adversely affected relative to the other NICs by the performance of its neighbors. Because Sri Lanka suffered increasingly from internal political instability, it had a substantial negative export growth rate, though that of Bangladesh was far larger. The Philippines showed a low but positive export growth rate as its political situation began to improve.

The Export Effort: Per Capita Exports. An indication of the intercountry importance of exports in comparative terms is the level and growth in per capita exports. The 1982-1985 dispersion of this ratio follows a priori expectations. The export effort on the part of the NICs and Malaysia is by far the greatest for the region, and generally they had the greatest increases in per capita exports during the periods covered. For the NICs, this can be attributed to necessity, since as small, resource-poor countries, they have no alternative to a major export effort toward achieving economic growth.

Despite the fact that they are of similar size and have a similar resource base, Bangladesh and Nepal show very low levels of per capita exports. Thus, to achieve accelerated and sustained economic growth, these countries will have to adopt policies aimed at export promotion and at making their economies internationally competitive. To some extent, the extensive foreign resource transfers have hindered their economic development because these transfers have reduced the pressure for necessary reforms.

For Malaysia and the other small (in geographic size or population) relatively resource-rich countries (Burma, Pakistan, Papua New Guinea, Philippines, Sri Lanka and Thailand), there is no option to external trade for sustained high-level growth in per capita income, though because of their resource endowments there is less pressure. The other countries have recognized that without international specialization and trade they will face increasing difficulties. In recognition of their size of markets and considering that they do not possess all the requisite resources for a modern economy, they have opted for a relatively high degree of international involvement. While all these countries show a relatively high level of exports per capita, in the recent past, only Thailand, Sri Lanka and Malaysia have shown continued rapid growth in per capita exports. The Philippines had lower per capita export growth during the 1970s than the other Southeast Asian countries, and for the reasons already stated it experienced a decline in per capita exports in 1982-1985. After enjoying considerable growth in per capita exports during the 1970s, Papua New Guinea experienced the largest decline during 1982-1985. While the decline in commodity prices partly accounted for this reversal, internal policy could well have been a contributing factor.

The People's Republic of China, India and Indonesia have varying resource endowments, with Indonesia having a relatively richer endowment. In some ways, this has been to Indonesia's detriment. Although the oil bonanza increased its level of per capita exports to relatively high levels, the country's large domestic market remained largely undeveloped. Moreover, any development in non-traditional exports was negated by the exchange rate effects (the "Dutch disease") of growing oil exports. Thus, when oil exports declined during the past two years, depreciation of its currency did little to boost exports.

While Indonesia has the option of developing manufactures for the domestic market as a step toward domestic competitiveness, this will raise per capita income only if it is done on a competitive basis with productivity increases

becoming more rapid as population grows. It will be difficult to bring this about without the increased specialization possible through trade, and more particularly without the pressure to be competitive internationally through increased openness.

Compared with the absolute resource endowment of Indonesia and in terms of the size of their populations, the People's Republic of China and India are relatively resource-poor countries, though when conditions are right they are capable of food self-sufficiency. Thus, while an inward-looking policy is politically feasible for these countries, the degree of success of such a policy depends on the extent of internal competition. Further, because of their relatively poor resource endowments, growth through economies of scale will reach a limit and further growth will require expanding trade to satisfy their resource requirements and to achieve the benefits of international specialization. Otherwise, their growth will stagnate, as in the case of India during most of the past two decades. Both countries show relatively limited per capita export effort, but the performance of the People's Republic of China has surpassed that of India, indicating that it recognizes the benefits of increased openness.

Finally, the change in the rate of growth in imports compared with the change in the rate of growth in exports between the late 1970s and the early 1980s gives an indication of the way in which the Asian and Pacific developing countries adjusted to the decline in the growth rate of exports. Four countries (Burma, People's Republic of China, Indonesia and Pakistan) reduced the rate of growth of their imports significantly less than the decline in the export growth rates, thus increasing their foreign exchange gaps or reducing their rates of increase of reserves. Fiji, Singapore and Thailand balanced or nearly balanced their reductions in import growth with their reductions in export growth. The other countries followed more conservative policies (especially considering that, except for Taiwan, they had trade deficits) and reduced the rate of growth of their imports considerably more than their reductions in their rate of growth of exports. For these countries, the decline in the rate of growth in imports further than the reduction in the rate of growth of exports must have negative implications for their future growth, even though it avoided future debt problems.

Resource Mobilization and Investment. Other things being equal, the greater the proportion of output devoted to capital accumulation, the greater the growth in output in the short run. In effect, if the "savings" (from all sources) ratio is increasing, both the gross domestic investment (GDI) ratio and the growth rate will be increasing, except when Keynesian unemployment exists. In long-run neoclassical growth equilibrium (which is probably never reached), both the savings ratio and the GDI ratio would be constant and the rate of growth of output would equal the growth rate of the labor force plus the rate of technical progress.

More important for the Asian and Pacific developing countries are the "catching up" — which is actually technical progress for a country not on the

technological frontier — sources of increased productivity, mostly but not always requiring embodiment in new capital and, therefore, being positively related to the rate of GDI growth. Only where an increase in the rate of capital formation reduces overall efficiency — which can occur when government intervention is against the market — will the expected positive relation between the GDI ratio and the growth rates be reversed. More often, there will be differences in the results achieved from the same GDI ratio due to country differences in the efficiency of utilization of capital.

The following discussion ignores these considerations since the incremental capital-output ratio (the usual measure) is ambiguous. Instead, the discussion refers only to the GDI ratio and its financing. In this context, a higher GDI ratio is “better” than a lower one.

On the financing side, the measures are relatively straightforward: a higher domestic savings ratio is “better” since it allows either a higher rate of capital accumulation for the same increase in debt or reduced dependence on debt. Positive non-factor payments (mostly remittances) do the same, while if such payments are negative they compete with domestic investment for available funds. Foreign sources add to debt, either formally or in terms of political obligations. Although it would be desirable to distinguish between the two, this is not possible for a sufficient number of Asian and Pacific developing countries to be useful.

On these criteria, the NICs have clearly done better than the other countries both in terms of gross domestic investment and domestic savings ratios, though their superiority was greater in 1975 and 1980 than it was in 1984-1985 (see Table 4). During the latter period, the performance of the Southeast Asian countries was at about the same level.

As their relative growth performance would suggest, the gross domestic investment performance of the South Asian countries was weaker during both periods, and except for India which achieved a domestic savings ratio just below the lowest level in Southeast Asia, all the South Asian countries did poorly in raising funds domestically. This was partly because of their very low per capita incomes and partly because of their policy choices. Papua New Guinea had a gross domestic investment ratio in the Southeast Asian range and a domestic savings ratio in the lower South Asian range.

A more detailed examination of country performance and of the foreign resource gap shows that Hong Kong and Taiwan had a similar experience, with domestic savings relative to GDP high and stable or increasing and the gross domestic investment ratio falling. The result for both was a considerable excess of domestic savings over domestic investment. Thus, these countries turned their earlier relatively small foreign resource gaps into large capital outflows. The key is whether these changes reflect adjustment to changed economic conditions or a movement of investment funds elsewhere due to political uncertainty.

The Republic of Korea and Singapore achieved relatively large increases in their domestic savings ratios during the period 1975-1980 and 1984-1985. Both maintained or increased their gross domestic investment ratios while doing so,

Table 4: Resource Mobilization and Gross Domestic Investment

	Domestic Saving/GDP 1984-1985		Foreign Reserves/GDP 1984-1985		Change in Domestic Saving/GDP 1975-1980		Change in Foreign Reserves/GDP 1975-1980		Domestic Saving/GDP 1984-1985		Foreign Reserves/GDP 1984-1985		Change in Domestic Saving/GDI 1975-1980		Change in Foreign Reserves/GDI 1975-1980		Net Factor Payments/GDI 1975-1980		Change in Net Factor Payments/GDI 1975-1980	
	(%)	(%)	(%)	(%)	1984-1985	1984-1985	1984-1985	1984-1985	(%)	(%)	(%)	(%)	1984-1985	1984-1985	1984-1985	1984-1985	1984-1985	1984-1985	1984-1985	
Newly Industrializing																				
Hong Kong	22	28	-5 ^a	-8	-	-	-7	125	-	-	-25 ^a	29	-	-	-	-	-	-	-	
Korea, Republic of	30	31	3	-	9	9	-8	101	-12	-12	11	29	-4	-4	-4	-4	-4	-4	-25	
Singapore	45	44	1	3	11	11	-10	97	-2	-2	2	19	3	3	3	3	3	3	-25	
Taiwan	20	32	-14 ^a	-12	2	2	-17	162	7	7	-69 ^a	70	8	8	8	8	8	8	-78	
Southeast Asia																				
Indonesia	23 ^b	26 ^b	2 ^b	2 ^b	1 ^b	1 ^b	2 ^b	116 ^b	-26 ^b	-26 ^b	10 ^b	-5 ^b	-	-5 ^b	-	-5 ^b	-	-5 ^b	10 ^b	
Malaysia	34	35	6	8	8	8	4	105	-22	-22	18	-1	-10	-10	-10	-10	-10	-10	11	
Philippines	17	16	4	-13	-8	-8	-2	92	-14	-14	22	1	-13	-13	-13	-13	-13	-13	2	
Thailand	23	19	8	-3	-2	-2	2	81	-14	-14	33	1	-11	-11	-11	-11	-11	-11	10	
South Asia																				
Bangladesh	11	3	3	-9	2	2	-4	27	47	47	27	17	38	38	38	38	38	38	-59	
India	23 ^b	20 ^b	3 ^b	- ^b	1 ^b	1 ^b	-1 ^b	88	-2	-2	14	5	1	1	1	1	1	1	-4	
Nepal	18	11	6	4	3	3	1	58	8 ^b	8 ^b	34	1	-3	-3	-3	-3	-3	-3	-4	
Pakistan	17	7	1	-	1	1	-5	40	56	56	5	4	28	28	4	28	28	28	-37	
Sri Lanka	23	14	11	-3	3	3	-4	61	-10	-10	49	15	-7	-7	-7	-7	-7	-7	-8	
Socialist Economies																				
Burma	16	13	4	-	-	-	2	79	-7	-7	28	-6	-6	-6	-6	-6	-6	-6	15	
China, People's Rep. of	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
South Pacific																				
Fiji	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Papua New Guinea	24	18	11	-2	2	2	4	73	-18 ^b	-18 ^b	45	-5	5	5	5	5	5	5	16	

.. = not available. a Negative gap = Surplus.

- = nil. b 1984 only.

Source: Asian Development Bank, *Key Indicators of Developing Member Countries of ADB* (Manila, July 1986).

and both managed as a result of these developments to reduce sharply their foreign resource gaps, in the case of Singapore to almost zero.

As in the case of the NICs, both the energy-exporting countries, Indonesia and Malaysia, had an excess of domestic savings over domestic investment. Malaysia accomplished this with a very high (relative to the rest of the region) gross domestic investment ratio and Indonesia with a medium one. Nevertheless, both countries have large debts to service because of past borrowings. Further, due to the recent decline in oil prices, the relatively large net factor payment outflows of these countries, which resulted from using their oil endowment as collateral for borrowing, have caused them to face difficult choices.

The experience of the Philippines and Thailand was similar, but with a key difference. Both had declining domestic savings ratios, with the decline in the Philippines being the largest in the region. Thailand, on the other hand, maintained its gross domestic investment near past levels, while it declined sharply in the Philippines. By 1984/85, both had large net factor payment outflows, but Thailand managed to use foreign resources to maintain both its level of domestic investment and its economic growth rate. The Philippines, on the other hand, was not able to achieve the same result by the mid-1980s.

India had a relatively high gross domestic investment ratio, equivalent to those of Indonesia and Thailand. It was largely financed by its high domestic savings ratio, leaving a relatively low and stable foreign resource gap. Sri Lanka, on the other hand, generated a much smaller share of funds domestically and borrowed to achieve its gross domestic investment ratio. This left Sri Lanka with a greater dependence on foreign funds than any other developing country in the region. India's relatively low foreign resource gap has been largely filled by "aid" or concessional credit. Thus, there would seem to be room for more borrowing for growth purposes on commercial terms, given India's exceptionally low per capita gross investment ratio.

In resource mobilization and investment, Bangladesh, Nepal and Pakistan are characterized by similarities and contrasts. All have low gross domestic investment ratios and even lower domestic savings ratios. To some extent, these countries finance the large resulting gap by remittances (net factor payments inflows). While remittances help to make Pakistan's foreign resource gap the fourth lowest in the region, they leave Bangladesh and Nepal with two of the largest resource gaps, both of which are financed by borrowing or aid.

Burma and Papua New Guinea, the remaining countries for which data are available, are similar in that they have relatively low and not increasing domestic savings ratios, and gross domestic investment ratios that increased until 1980 but then halted. The net factor income outflow of Papua New Guinea is much greater, due to the fact that it uses concessional funding to a much lesser degree to finance its foreign resource gap and due to its large number of expatriate workers necessitated by the country's human capital shortage. This makes its degree of dependence on foreign resources one of the greatest among the Asian and Pacific developing countries.

The Debt Position in the Region. While the debt position of the developing countries in the region is no longer one of near disaster, the options and development policies that can be pursued are constrained by a large, and in some instances, increasing debt. The countries with a possible debt problem are listed in Table 5; the countries are not necessarily those with large foreign resource gaps.

In general, four criteria are used in this analysis for identifying countries with possible debt problems. First, a debt/GDP ratio of more than 30 per cent is assumed to hold substantial potential for causing debt-service problems of a type that would, at some stage, constrain growth. Second, a debt-service/GDP ratio greater than 5 per cent is considered as having the same potential. Third, a debt-service/GDP ratio of 20 per cent or more is stipulated as a danger signal since this is the level of this variable used by the international banking community. Fourth, the interest-service ratio is assumed at 7.5 per cent of GDP.

Together, these criteria clearly show a deterioration of the debt position in the region. From 1975 to 1984, the number of countries in the "danger" range (using the debt/GDP criterion) increased from 25 per cent to 75 per cent. Thus, almost all the countries could be said to have *potential* debt problems. The proportion with debt-service/GDP ratios above the cut-off point increased less due to concessional terms and rescheduling, but nevertheless it increased from 8 per cent to 40 per cent during the same period.

Because of the success in increasing exports in the region, on the basis of the traditional debt-service ratio, the ratio of debt service to export earnings, the number of countries exceeding the danger cut-off point increased even less, though still significantly, after falling from 8 per cent to 6 per cent between 1975 and 1980, to 28 per cent in 1984. However, because of rising interest rates there was a much greater increase in the number of countries in "growth jeopardy" because of an increase in their interest-service ratios above the cut-off level. Using this criterion, the number of countries above this level increased from 8 per cent to 44 per cent during 1975-1984.

The arbitrary cut-off points used, as would any others within the range of interest to most observers concerned with debt risk, show very clearly that the situation worsened between the beginning and the middle of the 1980s. Obviously, the debt problem is not equally pressing in all the country groups (see Table 5). While the Southeast Asian countries exceeded the cut-off points relatively often and reached the danger zone 33 per cent of the time, the South Asian countries did so 25 per cent of the time and the NICs, 19 per cent of the time. This performance of the NICs was due to their ability to substitute export growth for debt in financing economic development, while the South Asian countries either chose not to, or were less able to, use debt to finance economic development. Until recently, they chose not to follow policies designed to raise exports and, thus, opted for the lower growth rates that accompany lower debt risk. The Southeast Asian countries took greater debt risks, but have yet to achieve, except possibly for Thailand, the necessary diversification or growth in exports.

Table 5: Selected Debt Indicators
(Percentages)

	Debt/GDP			Debt Service/GDP			Debt Service/Exports			Interest Service/Exports		
	1975	1980	1984	1975	1980	1984	1975	1980	1984	1975	1980	1984
Newly Industrializing												
Hong Kong	—	3	4	..	..	..	..	12	14	..	..	..
Korea, Republic of	29	47	51	3	5	7	..	7	16	5	7	8
Singapore	10	14	12	1	2	2	..	1	1	—	—	—
Taiwan	..	..	..	..	..	..	..	..	..	..	..	..
Southeast Asia												
Indonesia	36	30	42	3	4	6	14	14	13	5	5	9
Malaysia	15	17	39	2	2	5	3	3	8	1	2	5
Philippines	18	47	73	3	3	4	13	14	18	4	7	1
Thailand	9	25	36	2	4	5	12	17	23	3	6	9
South Asia												
Bangladesh	11	32	43	—	1	1	17	8	14	4	6	6
India	15	12	15	1	1	1	15	10	15	5	3	7
Nepal	2	9	18	..	—	—	..	1	3	..	1	2
Pakistan	45	37	31	2	2	3	19	18	28	8	8	8
Sri Lanka	20	41	47	5	2	4	22	6	12	3	2	6
Socialist Economies												
Burma	8	25	36	1	2	2	17	23	37	5	9	14
China, People's Rep. of	..	..	..	..	..	..	..	..	..	..	..	..
South Pacific												
Fiji	8	24	35	1	3	4	2	6	10	1	2	5
Papua New Guinea	39	29	81	..	5	15	..	11	36	..	5	14

.. = not available.

— = nil.

Source: Asian Development Bank, *Key Indicators of Developing Member Countries of ADB* (Manila, July 1986).

In terms of the debt-service/GDP, debt-service/export and interest-service/export ratios of individual countries, Burma, Indonesia, Republic of Korea, Philippines, Thailand, Pakistan and Papua New Guinea show high levels. Of these, the Republic of Korea, Philippines and Thailand also have commercial level interest charges on a substantial portion of their debt. Being subsidized, Pakistan, Burma and Papua New Guinea are in less danger in this regard, until or unless political winds change.

Bangladesh and Sri Lanka have potential problems because of their high debt/GDP ratios. While the concessional terms of their debt have kept them out of danger, they could have problems if forced to turn over existing debt on close to commercial terms.

While the Republic of Korea has one of the highest debt/GDP ratios and a debt-service/GDP ratio considerably above the danger level, the rapid growth in exports that it has achieved has reduced its debt and interest-service ratio to relatively low levels. Since the country's external debt is no longer growing, even a decline in its level of exports would cause few problems unless it became a long-term trend.

Monetary Deepening. Before discussing the policies that each country and group of countries have followed, it is worthwhile to consider monetary deepening as a financial performance index. Up to a point, monetary deepening will be greater, the greater the use of money, since this implies a greater degree of economic specialization, and the greater the degree of confidence in the government, especially the government's desire and ability to control inflation and its general policy toward private wealth.

After some point of income growth and financial development, as has occurred in the United States, alternatives to money begin to be more widely used, and the monetary deepening ratio tends to fall. However, no Asian and Pacific developing country has reached this point. For most of these countries, the increased use of money or increased efficiency of resource use represented by an increase in the monetary deepening ratio implies an outward shift in the production possibilities curve, and thus in per capita income.

Using the ratio of M_2 (demand deposits, currency and quasi-money) to GDP as a measure of monetary deepening, the levels of monetary deepening among the countries are shown in Table 6. The NICs show the highest levels of monetary deepening except for the Republic of Korea where the absence or real financial liberalization and a history of high inflation rates are still felt. The Southeast Asian countries are between the two countries, Malaysia and Thailand, just below the NICs, and the two countries, Indonesia and the Philippines, at the bottom of the Asian and Pacific country level of monetary deepening. The recent financial reforms in Indonesia may change its ratio soon, unless the outcome reflects the very high inflation rates in the past and the uncertainty about the recurrence of high inflation rates.

On average, the lowest per capita incomes of the South Asian countries and

Table 6: Monetary Deepening in Selected Asian and Pacific Developing Economies

	Money/GDP		Change 1980-1983 to 1983-1986
	1980-1983 Average (%)	1983-1986 Average (%)	
Newly Industrializing			
Hong Kong	94.5	132.1 ^a	37.6
Korea, Republic of	36.2	38.9	2.7
Singapore	71.9	70.5	-1.4
Taiwan	74.4	75.9 ^a	1.5
Southeast Asia			
Indonesia	19.3	22.4	3.1
Malaysia	61.0	64.1 ^a	3.1
Philippines	22.8	22.0	-0.8
Thailand	42.5	55.3	12.8
South Asia			
Bangladesh	20.6	27.0	6.4
India	40.6	43.7 ^b	3.1
Nepal	25.1	28.9	3.8
Pakistan	38.6	37.7 ^a	-0.9
Sri Lanka	29.5	28.6 ^a	-0.9
Socialist Economies			
Burma	29.1	31.9	2.8
China, People's Rep. of	..	..	..
South Pacific			
Fiji	..	..	..
Papua New Guinea	..	..	..

.. = not available.

a 1983-1985.

b 1983-1984.

Sources: Asian Development Bank, *Key Indicators of Developing Member Countries of ADB* (Manila, July 1986); International Monetary Fund, *International Financial Statistics* (Washington, D.C., November 1986).

a preference for inflation place these countries behind the NICs and the first two Southeast Asian countries, but before Indonesia and the Philippines. The countries at the bottom of the list could increase per capita income and growth, simply by encouraging greater use of money. Hong Kong, Taiwan and Thailand accomplished this during the 1980s, and Indonesia has just begun to follow this strategy. In fact, possibly for the same reasons — political problems and inflation — only in the Philippines and Sri Lanka did the level of monetary deepening decrease between 1980-1983 and 1983-1986.

Policy Responses

The economic performance of the Asian and Pacific developing countries is the product of both external events and the policies followed by each country. While the external changes are roughly the same for all the countries, the resource base available to each for responding to external events and the policies adopted differ. The resource base is partly a matter of "luck" (natural endowment) and partly the result of past policies affecting the accumulation of physical and human capital, its allocation and efficiency in its use.

In this regard, the government plays an important role, especially in the degree and nature of intervention and the macroeconomic policies adopted. The propensity of the government to run deficits is considered a key factor since monetary policy often becomes subservient to this propensity, though monetary policy has an effect independent of fiscal policy. Closely related to and affected by monetary and fiscal policies are the exchange rate and deposit and lending rate policies.

Fiscal Policy. It is widely believed that the policy which must be "right" involves choosing between government expenditure and tax revenue. Countries that consistently spend more than they receive in public revenues must find ways of doing so that are inflationary, that increase foreign debt or political obligations, or hide the government's role (non-tax revenues). Larger expenditures, therefore, tend to increase the government's level of intervention and, since they allow short-run political maneuvering at the expense of the "future", postpone the making of difficult policy choices.

To the extent that such policies fuel inflation and that exchange rate adjustments lag, the currency becomes overvalued. This discourages exports, encourages imports and raises foreign funding requirements or increases government non-tax fund-raising interventions. This disastrous syndrome has reached major proportions in the United States, but it also prevails in many countries and is a major source of the debt problems of developing countries in Latin America.

Thus, the size of the government deficit relative to GDP is a measure of policy effectiveness. The lower the deficit/GDP ratio, the better the policy per-

formance, recognizing that over the business cycle increased deficits are necessary and stabilizing during recessions. In fact, it is useful to examine two budget relations: that of between budget expenditures and taxes, and that of expenditures less total revenues.²

However, where the government sector is large relative to GDP, greater inefficiencies are likely to arise. Thus, the government expenditure/GDP ratio is also included in Table 7. In fact, this is a first concern, because whether financed from taxes, from taxes plus other revenues, or from deficits, any source of funding involving a large government share involves problems, the most obvious of which is competition with private sector access to resources.

In regard to the government's role in relation to GDP, no general observations can be made for the Asian and Pacific developing countries, apart from there being wide variation in this role within the country groupings. The countries with a larger than average share of government in GDP in 1972-1984 were Fiji, Indonesia, Malaysia, Pakistan, Papua New Guinea, Singapore and Sri Lanka. The share of the government in these countries averaged more than 20 per cent, and in many it exceeded 30 per cent. Further, the economic performance of most of them has been satisfactory, though they have recently faced problems which the governments may find difficulty in resolving because of a lack of flexibility arising from their large role. Pakistan has yet to meet the test, but it would encounter similar difficulties if a major shock occurred. Except for Singapore and Malaysia, the private sector is not particularly thriving in the countries listed in Table 7. The relatively small share of the government sector in GDP in the Philippines and in India is surprising, and in Burma it is a statistical artifact. In the first two, this result illustrates the shortcomings of the approach used to track the government's role.

In regard to deficits, the government expenditures less tax revenues measure shows that except for the South Pacific group, South Asia is generally ahead of the other country groups. Most significantly, three of the NICs and three of the Southeast Asian countries and India are at the bottom of the list. Except for Indonesia, these are countries with relatively low government expenditure/GDP ratios, and thus are not substituting high tax ratios for deficits.

Nevertheless, most of the countries with large government sectors also have much higher-than-average deficit/GDP ratios. This includes Malaysia, Singapore and Sri Lanka, and relatively less so, Pakistan. Though not spending a large portion of GDP on government, Nepal has a relatively large and growing deficit/GDP ratio.

In terms of the total deficit (with tax plus non-tax revenues included), Malaysia, Nepal, Papua New Guinea and Sri Lanka have large deficits to be financed by domestic or international sales of government securities or by foreign aid. Using 5 per cent as a cut-off level, which is also used by the International

2. A small deficit may be a necessary condition for policy success, but it is alone not sufficient. The degree of government intervention is also a factor.

P4618

Table 7: Ratios of Government Expenditure, Government Expenditures Less Taxes, Total Deficit and Tax Revenues to GDP

	Government Expenditure/GDP(%)		Change 1977-1981 to 1982-1984		Government Expenditure Less Taxes/GDP(%)		Change 1977-1981 to 1982-1984		Total Deficit(+) or Surplus(-)/GDP(%)		Tax Revenue/GDP(%)		Change 1977-1981 to 1982-1984	
	Average	Average	1977-1981	1982-1984	Average	Average	1977-1981	1982-1984	1982-1985	Average	Average	1977-1981	1982-1984	Average
Newly Industrializing														
Hong Kong	15	16	1	1	5	7	2	2	1	10	9	9	9	-1
Korea, Republic of	17	18	1	1	1	2	1	1	2	16	16	16	16	—
Singapore	30	33	3	3	12	13	1	1	-4 ^a	18	20	20	20	2
Taiwan	17	15	-2	-2	5	6	1	1	—	12	9	12	9	-3
Southeast Asia														
Indonesia	25	24	-1	-1	4	5	1	1	5 ^a	21	19	21	19	-2
Malaysia	38	40	2	2	15	18	3	3	12	23	22	23	22	-1
Philippines	15	13	-2	-2	4	3	-1	-1	3 ^a	11	10	11	10	-1
Thailand	17	18	1	1	4	5	1	1	4	13	13	13	13	—
South Asia														
Bangladesh	16	15	-1	-1	9	8	-1	-1	7	7	7	7	7	—
India	14	15	1	1	6	7	1	1	5 ^a	8	8	8	8	—
Nepal	14	19	4	4	7	12	5	5	10	7	7	7	7	—
Pakistan	23	23 ^b	—	—	13	13	—	—	6 ^c	10	10 ^b	10	10 ^b	—
Sri Lanka	36	35	-1	-1	17	17	—	—	14	19	18	19	18	-1
Socialist Economies														
Burma	14	14	—	—	3	5	2	2	-1	11	9	11	9	-2
China, People's Rep. of	..	15 ^d	..	..	..	..	..	..	2 ^c	..	..	..	..	..
South Pacific														
Fiji	30	32	2	2	11	14	3	3	8 ^a	19	18	19	18	-1
Papua New Guinea	34	35	1	1	19	18	-1	-1	13 ^a	15	17	15	17	2

.. = not available. a 1982-1984. c 1981-1983.

- = nil. b 1982-1983. d 1984 only.

Source: Asian Development Bank, *Key Indicators of Developing Member Countries of ADB* (Manila, July 1986).

Monetary Fund (IMF), Bangladesh, Indonesia and Pakistan have total budget deficits that give cause for concern. On this basis, India is at the cut-off point. Further, the group with high total deficit ratios includes six of the eight countries with high government expenditure/GDP ratios. This suggests that most of the governments were not prepared to ask the general public to pay now for their larger-than-average appetite for government goods. The low budget deficit countries include all the NICs.

It is interesting to note that the countries that spend a relatively large portion of their national income on government and have high deficit to income ratios are also those that exert relatively strong tax efforts. In relative terms, the governments are more involved either in demand for goods or in the provision of services than in other countries in the region. Also, they raise relatively more funds from abroad, through competition with domestic business, or by creation of money, *and* provide more tax disincentives, relative to the size of their populations, than in the other countries in the region. This group includes Fiji, Indonesia, Malaysia, Papua New Guinea, Singapore and Sri Lanka. They penalize their private sectors, taking away value-added from producers and allocating directly a large proportion of national resources to the long-term detriment of the country. This seems to have been recognized by Indonesia and Singapore. The Republic of Korea is close to the high tax group, but its relatively low government share and low budget deficit reflects fiscal prudence.

The low and falling tax/GDP ratio of Taiwan and the low ratio of Hong Kong are conducive to vigorous entrepreneurial activity. Pakistan's less vigorous tax effort may give rise to other problems, e.g., debt difficulties, considering its large government expenditure/GDP ratio. The even less vigorous tax efforts of Bangladesh, India and Nepal, along with their relatively large deficits, suggest that their tax efforts leave much to be desired.

Monetary Policy. The monetary policy of most developing countries is the handmaiden of fiscal policy. Thus, large deficits usually give rise to monetary expansion and, often, inflation. Nevertheless, where there are no budget deficits, expansionary monetary policy can cause inflationary problems, just as monetary policy can serve as a constraint where there are deficits; or it can cause a recession regardless of the budget position.

The relationship between the rate of growth in the money supply (M) and the rate of growth in real output is shown in Table 8. The difference between these rates is approximately equal to the rate of inflation less the rate of change in velocity.

Countries which had double-digit average rates of growth in money supply relative to GDP during 1983-1985 were — in decreasing order of their excess rate of monetary growth — the Philippines, Bangladesh, Hong Kong and Sri Lanka. The Republic of Korea, Singapore and Taiwan showed the greatest monetary constraint along with the two conservative Southeast Asian countries, Malaysia and Thailand. Pakistan was just above these countries with money sup-

Table 8: **Summary Measures of Monetary Policy**
(Per cent per annum)

	Growth in Money Supply Less Growth in Output (m-q)					Growth in Velocity (v)				
	Change 1978-1982 to					Change 1978-1982 to				
	Average					Average				
	1978-1982	1983	1984	1985	1983-1985	1978-1982	1983	1984	1985	1983-1985
Newly Industrializing										
Hong Kong	-1	6	10	22	13	11	-1	—	-17	-17
Korea, Republic of	16	6	-8	6	-15	2	-2	12	-2	1
Singapore	4	-2	-5	1	-7	1	6	7	-3	2
Taiwan	11	11	—	-2	-8	-1	-9	1	2	1
Southeast Asia										
Indonesia	21	2	8	16	-12	-2	13	3	-11	4
Malaysia	8	1	-8	-4	-11	-1	-4	14	2	4
Philippines	4	37	9	11	15	7	-26	40	7	—
Thailand	5	—	5	-8	-5	6	3	-4	9	-3
South Asia										
Bangladesh	12	29	24	5	7	4	-24	-8	5	-13
India	6	5	15	6	3	2	5	-9	1	-3
Nepal	11	19	6	—	-2	-4	-8	—	6	-3
Pakistan	10	9	3	-3	-7	-1	-3	7	8	5
Sri Lanka	12	21	9	6	1	4	-4	8	-4	-4
Socialist Economies										
Burma	74	9	10	—	-68	-71	-7	-7	—	-65
China, People's Rep. of	9	..	..	..	..	-6	..	..	..	..
South Pacific										
Fiji	5	12	..	..	8 ^a	2	-7	..	..	-9 ^a
Papua New Guinea	—	6	8	..	7 ^b	6	4	—	..	-5 ^b

.. = not available.

- = nil.

a 1983 only.

b 1983, 1984 only.

Source: Asian Development Bank, *Key Indicators of Developing Member Countries of ADB* (Manila, July 1986).

ply growth under control, while the other two South Asian countries, Burma and Papua New Guinea, occupied the middle position.

From 1975-1982 to 1983-1985, all the double-digit countries experienced increasing relative monetary growth (i.e., growth in $m-q$, where m denotes the rate of increase in the money supply, and q , the rate of increase in output). However, Sri Lanka's increase was very small as it moved toward greater monetary constraint in 1984 and 1985. These countries were joined by India and Papua New Guinea as countries taking increased inflationary risks during the 1980s. In relative terms, Bangladesh and Sri Lanka continued the already rapid rates of relative monetary growth they showed in 1975-1982, indicating a long-run lack of control of monetary growth and an inflationary bias until quite recently.

On the other hand, faced with major economic problems (e.g., Indonesia and Malaysia), or attempting to keep exports competitive and to prevent debt from overly constraining growth (e.g., the Republic of Korea, Pakistan, Singapore, Taiwan and Thailand), several countries sharply reduced their $m-q$ difference, bringing monetary growth under control. In fact, for Malaysia, Singapore and Thailand, the result was contractionary (in a recovery period!). Nepal also reduced its relative rate of monetary growth but reduced the difference only to the still-high level of Indonesia.

It is interesting to note the extent to which changes in velocity complemented or substituted for the inflationary or deflationary pressures inherent in a positive or negative $m-q$ relation.³ Except in Hong Kong, where velocity increased sharply during 1978-1982, it remained relatively low and stable (as the quantity theory of money would have it) in the other NICs. However, velocity changes became more important during 1983-1985 when often an increase in velocity negated part of the effect of relative monetary contraction (more in line with Keynesian theory). In Hong Kong, velocity fell each year from 1983 to 1985, a surprising result given Hong Kong's low real rate of interest for depositors, unless there was a significant increase in the underground economy.⁴ In Burma, declining velocity helped regularly to offset relatively rapid monetary growth, keeping price inflation down. This decrease, given the other policies followed, is also surprising, unless the underground economy was growing.

In the Southeast Asian countries, the change in velocity was small in Indonesia and Malaysia, and large, positive, and greater than the $m-q$ difference in the Philippines and Thailand in 1978-1982, obviously an explosive situation. In these countries, increased velocity *complemented* the excess of monetary over income growth, and thus added to the inflationary pressure resulting from excess monetary growth. After 1983, velocity "behaved" better in Thailand, but

3. It is assumed in the subsequent discussion that most Asian and Pacific developing countries are at or near full employment. Thus, variations in m and v affect inflation, not q .

4. Another possibility is that increased liquidity through growth in M_1 (the money supply definition used in the calculations) was impounded in the reserves required by growth in non-monetary liquid assets. With larger and perhaps more flexible rates, inflation would not penalize these assets as much as money or near money, but the reserve growth would have had to be very large to explain the observed decrease in velocity.

continued to complement monetary growth in the Philippines in 1984 and 1985 and in Indonesia in 1983 and 1984 (before the monetary reform). In Malaysia, velocity changes were not so destabilizing; they moved opposite to and by less than the $m-q$ difference from 1983 to 1985.

The South Asian experience during 1978-1982 is more diverse than in the other country groups. Velocity changes explained little in Pakistan, showed destabilizing complementation of the relative money supply growth in Bangladesh, India, and Sri Lanka, and served to offset a positive $m-q$ difference in Nepal. Over the 1983-1985 period, the results were equally diverse, with an unwanted complementary relation found in all countries in at least one year. From the limited data available, the People's Republic of China shows a "well-behaved" Keynesian relation.

On the basis of experience of the last nine years in the Asian and Pacific developing countries, it is difficult to predict the effects of changes in the rate of growth of the money supply relative to the growth rate of output on the inflation rate.⁵ Velocity has just not been well-behaved.

Real Exchange Rates. The real exchange rate is determined by a country's nominal exchange rate and its rate of inflation relative to the rate of inflation of the country or countries included in the base of the exchange rate. Since a trade-weighted exchange rate and a trade-weighted inflation rate are not readily available for many of the Asian and Pacific developing countries, country exchange rates for the U.S. dollar and country inflation rates relative to the U.S. inflation rate are used in this discussion.

Changes in a country's real exchange rate arise from changes in the nominal rate, which may be set by the government, by the market within limits determined by the government, or by the market. Pressure for depreciation comes from a current account deficit and is increased by a worsening of the current account position (either a decrease in a surplus or, more strongly, an increase in a deficit) and from a decrease in international reserves. The expectation that a currency will depreciate based on the above relations and many other factors will also tend to cause the currency to depreciate. Pressure for appreciation comes from opposite forces. The stock and flow relations involved in exchange markets are complex and are the subject of some controversy among economists, but the broad relations just noted can be expected to hold.

Changes in a country's real exchange rate can also come from changes in the country's relative rate of inflation, with, other things being equal, increased relative inflation leading to appreciation in real terms and vice-versa. Because the rate of inflation and the nominal exchange rate are related (increased inflation tends to cause nominal depreciation and vice-versa), the relation observed between inflation and the exchange rate requires careful interpretation. Where a currency appreciates in real terms along with increased inflation and

5. The same would apply to any instance where m was increased to raise q .

depreciates along with reduced inflation, it is assumed here that this is a result of a policy choice.

A similar problem arises in interpreting the relationship between payments pressures and real exchange rate movements. When the change occurs due to outside market forces, the relations described above should hold. If a country deliberately attempts to increase its competitiveness by depreciating its currency by changes in the real exchange rate and succeeds in doing so, the current account should improve. If that should happen, the policy intervention is clear and can be noted. Where current account pressures are associated with a relative change in the real exchange rates that seems (using regional relationships as a benchmark) out of line with the pressures, that will also be interpreted as a policy intervention.

In sum, observed changes in real exchange rates may result from policy changes, from outside developments affecting the balance of payments and aggregate demand, or from domestic policies affecting the same variables and aggregate supply. They can also arise from changes in expectations influenced by all of the foregoing. Among the Asian and Pacific developing countries, the nominal rate is seldom set entirely by market forces. Thus, changes in real exchange rates almost always have an implicit policy content.

Changes in real exchange rates in descending order are shown in Table 9 (i.e., the country with the largest real appreciation in its currency, or lowest real depreciation appears first). Thus, each country is ranked according to its change in competitiveness during 1980-1986, with those at the top becoming relatively less competitive and those at the bottom relatively more competitive. Changes in nominal rates are given for purposes of comparison, and payments and inflation rate pressures are also ranked for each country, with the country having the most pressure for appreciation, or reduced depreciation since this is relative, coming first.

There are no regional patterns discernible for the changes in real exchange rates presented, and there is a wide variation in outcomes within the country groups. This is especially true in terms of the relationship between the relative real depreciation achieved (all countries had real depreciation) and the relative real depreciation that would have been achieved if the outcome had been in line with the relative payments and inflationary pressures in each country.

Countries with relatively less depreciation than either their inflation rate or payments pressures would dictate were Fiji and Malaysia. This is not easy to explain since it suggests policy intervention aimed at preventing pressures toward relative depreciation from affecting the exchange rate. Countries that allowed inflation to prevent their currencies from depreciating in real terms by as much as their relative payments position seemed to require were Burma, India, Nepal and the Philippines. Although the Philippines had the largest nominal depreciation and India and Nepal showed relatively large nominal depreciation, these countries did not constrain inflation sufficiently to allow improvement in their relative competitive positions in the region. For the same reason, the

Table 9: Real Exchange Rates

	% Change in Exchange Rate ^a (Base Year = 1981)		% Change in Exchange Rate (Base Year = 1980)		% Change in International Reserves 1980-1985		% Change in Current Account 1980-1985		Average Annual Inflation Rate 1982-1985 (%)		Ranking ^c		% Change in Real/ % Change in Nominal Exchange Rate	
	1985		1985		1985		1985		1985		1985		1985	
	1985	1986 ^b	1985	1986 ^b	1985	1986 ^b	1985	1986 ^b	1985	1986 ^b	1985	1986 ^b	1985	1986 ^b
Fiji	9	4	41	41	-22	83	41	83	6	1	9	7-10	TLD	22
Singapore	14	18	3	83	83	83	83	83	2	2	3	14/15	NB	67
Taiwan	16	16	8	8	492	1,017	1,017	1,017	1	3	1	16	NB	200
Malaysia	18	26	14	14	-1	-362	-362	-362	3	4	12/13	12/13	TLD	129
Sri Lanka	22	18	64	64	68	36	36	36	11	5	4	2/3	NB	34
Philippines	27	43*	148	148	-72	96	96	96	23	6	8	1	TLD	18
Nepal	29	22*	53	53	-65	-162	-162	-162	9	7	16	4/5	TLD	55
India	32	29	57	57	-20	-9	-9	-9	8	8	12/13	6	TLD	56
Korea, Republic of	33	33*	43	43	-4	83	83	83	4	9	5	11	NB	77
Burma	34	14	28	28	-68	32	32	32	6	10	11	7-10	TLD	121
Bangladesh	35	36	81	81	7	15	15	15	11	11	7	2/3	NB	43
Thailand	36	32	33	33	-	28	28	28	3	12	6	12/13	TMD	109
Papua New Guinea	42	31	49	49	-24	-14	-14	-14	6	13	15	7-10	STLD	86
Indonesia	46	55*	77	77	-12	-174	-174	-174	9	14	14	4/5	NB	60
Pakistan	48	52	61	61	-9	21	21	21	6	15	10	7-10	TMD	79
China,														
People's Rep. of	62	..	36	36	67	200	200	200	2	16	2	14/15	TMD	172
Hong Kong	9	9	40	40	..	..	..	..	8					23

.. = not available.

--- = nil.

a A country's real exchange rate in year $t = (\text{the country's nominal exchange rate in year } t) / (\text{the country's CPI in year } t (1980 \text{ base}) / [\text{U.S. CPI in year } t (1980 \text{ base})])$.

b 1986 data are based on the second quarter except those marked by an asterisk which are based on the third quarter.

c With the highest real appreciation (or least real depreciation) coming first and the greatest payments pressure and inflation pressure for real appreciation also coming first.

d Average of the rankings for international reserve and current account percentage changes.

e TLD = too little depreciation; STLD = slightly too little depreciation; NB = no bias; TMD = too much depreciation (all relative to payments pressures compared to other Asian and Pacific developing countries).

Sources: Asian Development Bank, *Key Indicators of Developing Member Countries of ADB* (Manila, July 1986); and International Monetary Fund, *International Financial Statistics* (Washington, D.C., January 1987).

currency of Papua New Guinea depreciated slightly less than the amount required for maintaining the country's relative competitiveness.

In relative terms, the change in Sri Lanka's real exchange rate was near to that commensurate with its relative payments pressure and inflation ranking. Thus, Sri Lanka became relatively less competitive in regional terms. Other countries for which domestic currency depreciation was near to concurrent payments pressures were Bangladesh, Indonesia, Republic of Korea, Singapore and Taiwan. For Singapore and Taiwan, this meant much less real depreciation than for the other countries, except Fiji. The Republic of Korea's real depreciation was mid-range in terms of the region and more than that of several of its competitors. Both Bangladesh and Indonesia offset the appreciating effects of their relatively high inflation rates and achieved real depreciation in line with their payments pressures, thus improving their relative competitive position as called for by those pressures.

The People's Republic of China and Thailand took steps to improve their competitive positions by depreciating their currencies in real terms by more than the amount dictated by their relative payments positions but in line with their relatively low inflation rates. Thailand was closer to its relative payments position than the others, and the People's Republic of China made the most "aggressive" move to improve its relative competitiveness. Pakistan depreciated relatively more than called for by its relative payments position (and in this instance, its inflation rate) and seemed to follow an aggressive policy to improve its relative international competitiveness.

Briefly looking at the 1985-1986 period, just over half of the countries showed real appreciation of their currencies as the U.S. dollar fell sharply in value. Fiji, India, Nepal and especially Burma depreciated their currencies relatively less than called for through 1985 and appreciated their currencies absolutely in real terms from 1985 to 1986. The currency of Sri Lanka also appreciated from a relatively weak competitive position. For Thailand and Papua New Guinea, real appreciation partly offset the relatively improved regional competitive position achieved from 1980 to 1985. For Thailand the change accurately reflects the country's improved payments position.

Malaysia and the Philippines depreciated less than called for through 1985 and are now reversing this outcome with real depreciation vis-à-vis the sharply depreciated U.S. dollar. Singapore achieved real depreciation from a "balanced" position in 1980-1985, though it was not very competitive. Bangladesh also did so, though less in relative terms from a "balanced" but more competitive position during 1980-1985. Having started on the path in 1980-1985, Indonesia and Pakistan achieved further real depreciation in 1986. The Republic of Korea and Taiwan kept pace with the decline of the U.S. dollar and U.S. inflation, thus showing a constant real exchange rate from 1985 to 1986. This, of course, meant that their currencies depreciated in real terms against the yen, as in the case of all Asian and Pacific developing countries.

Real Deposit and Lending Rates. If domestic savings other than by the government (not distinguished in the data in this analysis) are to be encouraged, real deposit rates must offer a positive return for a sufficiently long time to be expected to continue. If borrowed resources are to be allocated efficiently, real lending rates must be positive and high enough to make government rationing largely unnecessary (or simply a "tax"). However, there is some conflict here. While low real lending rates encourage investment, if borrowing rates are set so low that demand far exceeds supply, then there must be some rationing device, and government policy and the market would carry out the rationing. Where real deposit rates are low (encouraging saving) and real lending rates are equally low (encouraging borrowing), the government will clearly have a role in rationing investible funds, and the country's capital resources will be allocated on political rather than on economic lines.

The experience in this regard is shown in Table 10. On the domestic savings side, Malaysia, Taiwan and Thailand had high (over 5 per cent) and stable or growing real deposit rates. Sri Lanka had a high average real return based on an extreme value in 1985. The Republic of Korea, Pakistan and Singapore had reasonable real returns to depositors (3-5 per cent) and on a steady level. Thus, except for Hong Kong, all the NICs offered stable positive and attractive real deposit rates as did the two financially conservative Southeast Asian countries and the two relatively outward-looking South Asian countries.

Indonesia had a relatively low average return, but this hides a major change in policy, with negative deposit rates in 1982-1983, and then with reform, high and positive rates in 1984-1985. Papua New Guinea had a series of low positive returns through 1984 and then brought real returns to high levels by reducing inflation.

Bangladesh had a steadily very low return, including one year of a negative real rate, which seems to be an unusual approach to raising its savings ratio, the lowest in the region. Also, Hong Kong had a steady but relatively very low return, where presumably inflationary expectations lagged inflation, indicating that even relatively sophisticated markets do not always adjust immediately. The experience of Fiji was similar to that of Hong Kong. India had a very low average return, with a steady increase from negative to relatively attractive positive levels over the period. Nepal had high negative rates in four of the five years covered.

The Philippines is a special case, with real returns comparable to those of the Republic of Korea in 1982-1983, but due to inflation outpacing the rapidly increasing nominal returns, it had a very high negative return in 1984 and a negative return in 1985. The result was the lowest average deposit rate in the region. However, in the first quarter of 1986, the rate became highly positive and is likely to remain so for some time, since the present lack of confidence in the financial system must be overcome.

For most countries, relative lending rates mirror relative real deposit rates. However, there are significant exceptions, with India, Nepal and Fiji ranking

Table 10: Real Interest Rate Policy
(Per cent per annum)

	Real Deposit Rate			Real Lending Rate			Real Lending
	1984-1985	3rd	Quarter Less 1982-1985	1984-1985	3rd	Less	
	1982-1985	1982-1983		1982-1985	1982-1983	Real Deposit	
	1982-1985	1982-1983		1982-1985	1982-1983	1982-1985	
Newly Industrializing							
Hong Kong	0.3	—	0.5 ^a	3.7	1.4	4.2 ^a	3.4
Korea, Republic of	3.7	-0.1	3.6	7.1	3.2	9.6	3.4
Singapore	4.3	0.3	5.0 ^a	7.0	-0.2	7.7 ^a	2.7
Taiwan	6.4	0.2	..	6.9	0.6	..	0.5
Southeast Asia							
Indonesia	2.4	13.6	..	1.4	6.1	..	-1.0
Malaysia	5.6	2.8	..	7.3	4.1	..	1.7
Philippines	-6.7	-19.1	9.4 ^a	-6.1 ^c	-24.3	..	0.6
Thailand	8.9	4.9	7.2 ^a	15.5	..	16.7	6.6
South Asia							
Bangladesh	1.2	0.4	2.4	1.2	0.4	2.4	—
India	0.5	5.2	2.0 ^b	8.1	3.0	8.5 ^b	7.6
Nepal	-4.3	6.7	-12.6 ^a	7.9 ^c	10.0	..	12.2
Pakistan	3.2	-0.3	..	4.9 ^d	..	..	1.7
Sri Lanka	7.5	4.0	5.8 ^b	2.2	4.3	6.3 ^b	-5.3
Socialist Economies							
Burma	..	..	..	..	..	..	..
China, People's Rep. of	..	..	..	..	..	..	..
South Pacific							
Fiji	0.2	2.0	..	7.7	2.0	..	7.5
Papua New Guinea	2.7	1.2	10.2 ^a	5.2	-2.0	..	2.5

.. = not available.

— = nil.

a First quarter.

b Second quarter.

c 1982-1984.

d 1982-1983.

Sources: Based on deposit rate and lending rate data from International Monetary Fund, *International Financial Statistics* (Washington, D.C., January 1987); and Asian Development Bank, *Key Indicators of Developing Member Countries of ADB* (Manila, July 1986). Deflated by inflation rate (see Table 2). Rates used sometimes differ in type and maturity between countries; small differences are not significant.

second, third, and fourth, respectively, on the real lending rate scale and achieving a spread probably considerably greater than costs. Despite the high real lending rates of these countries, their very low real deposit rates probably meant that they employed considerable rationing of capital. Of course, these rate differentials apply to unsubsidized private borrowers, and it is quite possible that they constitute only a small part of the capital allocation.

Thailand, which ranks first in both lists, achieved more than the necessary spread, but more important, it provided a definite incentive to borrowers to be careful, and thus had a lending rate that could serve to efficiently allocate scarce capital. The Republic of Korea, Malaysia, Papua New Guinea, Singapore and Taiwan maintained lending rates high enough to keep the government's role relatively small, when taken in conjunction with the real deposit rate offered. Both Malaysia and Taiwan had a low spread, suggesting that deposit rates were subsidized. Countries with low but still positive real lending rates included Hong Kong and Pakistan.

Indonesia and Sri Lanka had negative spreads, obviously subsidizing borrowers with very low lending rates. Bangladesh with a zero spread and one of the lowest lending rates is clearly in the same category. These countries pursue policies that would encourage capital misallocation. Finally, because of very rapid inflation as well as negative real deposit rates, the Philippines showed negative real lending rates in 1984-1985, though this was reversed in 1986.

The governments of Asian and Pacific developing countries have not all been successful with their interventions in financial markets. Generally, a high deposit, high lending rate approach is best, if the market is not used. The Republic of Korea, Malaysia, Singapore, Taiwan and Thailand, with Pakistan and Papua New Guinea coming close, used this approach. Hong Kong is an example of money illusion at work in a highly sophisticated setting. Fiji, India and Nepal penalize savers and "tax" borrowers. Bangladesh, Indonesia and Sri Lanka ration and subsidize borrowers, with Bangladesh penalizing savers as well.

Summary and Issues

The NICs. The NICs generally did better than the other countries in the region in having their policies in line with development, and this was associated with a generally better performance during the first part of the 1980s, though relatively not as outstanding as during the 1970s. Their budget deficits were generally the lowest, the size of the government sector was small, except for Singapore, and they kept their monetary growth more in consonance with output growth, and could thus better control inflation. Hong Kong, however, had a high inflation rate. The NICs generally achieved greater increases in monetary deepening and decreases in velocity than the other countries and kept their real exchange rates in line with balance of payments needs, and in some instances, trade promotion requirements. Except for Hong Kong, they offered relatively

high and stable real deposit rates and maintained real lending rates that reduced the government's role in allocating capital. They were more outward-looking than countries in the other groups.

These policies were accompanied by high real growth rates compared with the other country groups. Although several countries in the other groups did as well as one or more of the NICs, no other group reached the NIC performance as a whole. The higher real growth rates of the NICs were translated into much higher per capita growth rates. The high growth rates, with the expected exception of Hong Kong given its monetary policies, enabled the NICs to achieve lower inflation rates than elsewhere in the region. Even during the difficult 1980s, as a group, the NICs maintained the highest export growth rates, though lower than in the past. All the NICs improved their foreign resource ratios and achieved, except for Hong Kong, high and increasing domestic savings rates that became high gross domestic investment ratios in the Republic of Korea and Singapore, and made Hong Kong and Taiwan exporters with, in the case of Taiwan, rapidly increasing international reserves. Only the Republic of Korea had a relatively high debt/GDP ratio, and no NIC had a high debt-service ratio.

More recently, Singapore has faced difficulties, a result of problems encountered by its neighbors arising from falling oil and commodity prices and domestic policies. Because of its large government sector and lag in higher education, Singapore may face difficulties in achieving the flexibility necessary for the required structural adjustments and, thus, for a more rapid recovery than that of its neighbors. Hong Kong, Republic of Korea and Taiwan, on the other hand, have been greatly aided by the decline in oil prices and by the appreciation of the yen (Singapore was helped by the latter as well), and in 1986 exports and growth boomed for both the Republic of Korea and Taiwan, with Hong Kong showing similar improvement. There could be concern about the falling gross domestic investment ratio in Hong Kong and in Taiwan, which could reflect the negative impact of increased political uncertainty. A more positive explanation would be a shift in sector emphasis that requires less capital per unit of output (Hong Kong's shift to services) or a temporary cyclical response (in Hong Kong from construction and in Taiwan following a long investment boom).

The policy and economic performance of the NICs has been impressive. No other group of developing countries in Asia, or in any other region of the world, can match their performance. Having opted for openness — actually "opted" implies choice and they had none if growth is the goal — and taken on the concomitant requirement of international competitiveness, the NICs have established the environment, to a greater degree than elsewhere, necessary for adapting to changing conditions. As long as they can smoothly resolve their leadership transfer problems, they should continue to be among the world's best performers.

The Southeast Asian Countries. The Southeast Asian countries, though differing considerably in market size, are similar to each other in being relatively

resource-rich countries. However, their performance has varied during the 1980s, partly because two countries were oil exporters and two, oil importers — as included in this analysis — and partly because they followed different domestic policies. Apart from differing oil price fortunes, all were affected by the decline in commodity prices and slower growth in world trade.

The effects of the appreciation of the U.S. dollar and then depreciation were not as clearly positive or adverse as for the NICs, given the export and debt mix of the Southeast Asian countries, though the increase in the early 1980s of real interest rates had adverse effects and the recent decline, favorable effects. Thus, the performance of the two oil exporters would be expected to be similar to each other and that of the two oil importers also similar. However, this has not been the case, given the differences in the policies followed. In this regard, they are unlike the NICs, whose policies were similar. However, before reviewing the differences, it is worth noting that, except for the Philippines, the policy performance of the Southeast Asian countries has been impressive, though not matching the performance of the NICs.

It is unfortunate that the positive payoffs have not been greater for the Southeast Asian countries during the 1980s, and that in relative terms their growth performance as a group has been, even when the Philippines is excluded, only slightly better than that of South Asian countries during the same period. This outcome tends to undermine the political will to continue on the necessary policy path. It could be argued that but for the policies of Indonesia, Malaysia and Thailand, their economic performance would have been far worse. The Philippines faced the same external challenges as Thailand and other oil importers, and therefore, its much weaker performance can only be attributed to its policies.

Turning to the broad policy differences during the 1980s, Malaysia had a large and growing government sector and large growing deficits, both being in the upper range for the region. The other Southeast Asian countries were either close to the regional average or followed fiscal policies close to those of the NICs. Monetary policies set high standards in both Malaysia and Thailand, but left something to be desired in Indonesia and much to be desired in the Philippines. In Indonesia, the excess of m over q was much greater than in Malaysia and Thailand, and until the recent monetary reform, the real deposit rate was negative. Up to 1986, the Philippines had the second highest excess of m over q and the highest negative real deposit rates in the region.

Thailand and Indonesia, the latter out of necessity and the former to avoid being in necessity, adjusted their exchange rate policies to achieve real depreciation greater than that called for by their inflation or payments positions compared with the other countries in the region. Although the Philippines introduced a large nominal depreciation, because inflation outpaced this change, it achieved less real depreciation than called for by its weak payments position. With the largest current account deficit in the region, Malaysia had one of the lowest real exchange rate depreciations. This meant that it had to resort to increased debt



financing and seems explainable only in terms of keeping pace with Singapore, where there was an even lower rate of real depreciation.

The result of these diverse policies was diverse outcomes. Thailand and Malaysia did well in terms of achieving real growth, in terms of both total and per capita income, and in controlling inflation. They also did well in achieving high rates of capital accumulation, though Malaysia financed a considerably higher share through domestic savings. Both countries showed average or slightly above average per capita export efforts.

After relatively good export growth during the 1970s, the export performance of Indonesia and the Philippines declined, with the Philippines reaching the lowest level during the 1980s in the region. Both countries had relatively low levels of per capita income growth, with real per capita income falling in the Philippines during the early 1980s. Further, both countries fared poorly in controlling inflation, with the Philippines having the worst performance in the region. These problems were reflected in gross domestic investment, domestic savings ratios and per capita export efforts of the Philippines, and to some extent of Indonesia.

The Southeast Asian countries faced export growth problems during the 1980s, though the situation changed for Thailand during 1986. As a result, except for Malaysia, they had high debt-service ratios. The increase in debt relative to GDP declined in Indonesia and Thailand, but was high in Malaysia and the Philippines. These countries experienced an increase in their foreign resource ratios, and they had very high (Malaysia and Indonesia) or increased (Thailand and the Philippines) net factor payment outflows. Thus, their debt situations are not very sound, despite the fact that Thailand and the Philippines reduced their rates of growth of imports between the late 1970s and the early 1980s in line with the decrease in the rate of growth of their exports over the same period, and that Malaysia reduced its corresponding rate by more than the decline in its export growth rate. Only Indonesia held the decline in its import growth below the decline in its export growth.

The South Asian Countries. The South Asian countries have been generally inward-looking, depended on primary product exports and, in India's case, on manufactured exports to the socialist countries. However, during the 1980s, Bangladesh, Nepal, Pakistan and Sri Lanka have been shifting emphasis toward manufactured exports.

Except for Pakistan, which ranks fairly high on several policy standards, the other countries have generally adopted more inflationary monetary policies, they have larger government deficits though not larger government shares, and offer lower returns to domestic savers (except for Sri Lanka) than the other countries in the region. India and Nepal pursued real exchange rate policies that reduced their relative regional competitiveness, while Sri Lanka allowed an improved payments and reserve position to be reflected in relative appreciation, also reducing its relative competitiveness. Only Bangladesh and Pakistan



used real exchange rate policy to improve the competitiveness of their exports compared with the other countries in the region. In addition to having a better real exchange rate policy, Pakistan was an exception to the generally large-deficit, high-inflation, low real-return picture because during the 1980s (but not the 1970s) it had a low rate of growth of *m* compared with *q*, a good real deposit return, and a relatively small government deficit.

Despite their relatively poor policy performance in terms of total growth, the South Asian countries did much better compared with the other Asian and Pacific developing countries during the 1980s than they did during the 1970s, the bottom line of this policy performance being generally weaker and absolutely low per capita growth performance. Within the South Asian group, Pakistan ranked highest in macroeconomic policy and had the best growth performance.

Also, given their monetary policies, the South Asian countries, except for Pakistan, had relatively high rates of inflation. And, including Pakistan, they had relatively low rates of domestic savings, with India's saving being considerably stronger. Except for Sri Lanka and India, these countries had relatively low gross domestic investment ratios, reflecting their low domestic savings ratios. However, Bangladesh, Nepal and Pakistan were able to compensate for their low savings ratios through inflows of remittances, and this led to sharply falling foreign resource shares in gross domestic investment for Pakistan and Bangladesh, and to a small decline in Nepal.

Except for Nepal, the South Asian countries had relatively high debt to GDP ratios, and with the exception of Pakistan, these ratios grew by fairly large increments during the early 1980s. However, they maintained their debt-service ratios at lower levels than the countries in the other country groups. Clearly, they were helped in this by large amounts of concessional aid. Thus, if they continue their present adverse macroeconomic policies and aid slows down or remittances decline, they will face a difficult situation.

On the brighter side, the South Asian countries, except for Pakistan, managed to achieve a relatively high rate of growth of exports during the 1980s, though in terms of per capita exports they did relatively less well. Since Pakistan was more open, like the Southeast Asian countries, it paid a short-run export growth price for this openness, but presumably will in the long run reap the benefits.

Although the South Asian countries did relatively well compared with the other Asian and Pacific developing countries, their export growth fell between the last part of the 1970s and the first part of the 1980s. Except for Pakistan, they opted to reduce their rates of growth of imports by much more than the decline in their rates of growth of exports. Thus, they followed a generally conservative policy, eschewing the increased commercial funding that would be necessary to do otherwise, and instead accepting a lower rate of growth of imports.

The performance of the South Asian countries during the 1980s seems relatively better than the macroeconomic policies would justify. This is partly

a result of the slippage elsewhere in the region and partly a result of improved South Asian policy during the 1980s. The latter is especially noteworthy in terms of the increased liberalization and decreased intervention promised and partly delivered in most of the South Asian countries, but most significantly in India. If the required policy reforms are followed, South Asia will be able to close the gap with the other country groups even in relatively good times, and finally, to begin to make significant strides in increasing productivity and, thus, per capita income.

The Socialist Economies. In terms of policy or performance, Burma and the People's Republic of China cannot be judged in the same way as the other Asian and Pacific developing countries. Inflation is repressed in both, and government expenditures seldom exceed taxes by more than foreign aid. Under these circumstances, economic indicators have less meaning and policy decisions are not transparent. Further, in the People's Republic of China, much of the requisite data are not available.

In regard to trade and exchange rate policy, the People's Republic of China has been relatively competitive and successful since it shows the most rapid rate of growth in per capita exports in the region. For the limited 1984-1986 period for which data are available, it also had the highest real rate of growth of output. While this rate would undoubtedly have been lower at market-clearing prices, it is still impressive. Overall, the People's Republic of China's move toward liberalization and trade expansion seems to have paid dividends.

Burma's turn toward a more inward-looking orientation had, as measured in controlled prices, shown reasonable growth dividends. It led, however, to a particularly high debt-service ratio and is accompanied by very low domestic saving and GDI ratios, the latter implying slower future growth. However, in general, it is difficult to draw comparative conclusions from the experience of Burma for the reasons suggested.

The South Pacific Countries. Both in Fiji and Papua New Guinea, single-digit rates of inflation continued. Papua New Guinea, the only South Pacific country for which data are available, turned a fairly low domestic savings rate into a relatively high GDI ratio while covering a rather high net factor payment outflow by a high dependence on foreign resources. It did relatively well in adopting appropriate policies and giving incentives for diversification and trade expansion. Fiji did not achieve similar results, at least in terms of real exchange rates.

Some General Conclusions. The results presented confirm general impressions about which countries did well, but they also help forestall erroneous conclusions about supposed trends. However, several broad correlations between policies and various performance indicators and economic growth are evident. Especially closely related to growth is the measure of monetary control

presented, *m-q*, and the change in this relation. Other performance characteristics that move relatively closely with GDP growth are the growth rate in exports per capita (the growth in exports and the level of per capita exports show no relation), the change in the current account (a reduced deficit is associated with more rapid growth), the domestic savings ratio (which accords with theory) and the real deposit rate.

Related in the expected manner, but with many more exceptions, are the total deficit, and somewhat less closely, the expenditures less taxes deficit, the foreign resources gap, the change in the debt/GDP ratio, and the change in the rate of growth in exports less the rate of growth in imports, among others. Not showing much short-run association with growth, in addition to the relations previously mentioned, are the debt/GDP and debt-service ratios and the nominal and real exchange rates. Since the latter are designed to correct problem situations as well as to maintain or improve competitive situations where there are no problems, the lack of association is not surprising. Since other non-quantified interventions are often more important, it is also not surprising that the relative size of the government sector as reported in the income accounts has a widely varying relation to growth, though at the extremes the relation is as expected, except for Malaysia, Philippines and Singapore.

The policy lessons, drawn from a five-year to 15-year period and given the observed significance of monetary and financial factors and of per capita export efforts, are clear. If the available data on the degree of openness or the usual (but intuitive) ranking of countries by extent of government intervention are applied, it is also clear that according to the conventional view of these variables, greater openness and less government intervention, or more competition, are related to more rapid growth and to generally better economic performance, including performance as measured by most of the indices of welfare other than growth and the relative equality of the income distribution.

Issues. There is no evidence to suggest that the countries with more openness and trade will in the future perform worse than those that have been more inward-looking. In fact, even for the difficult 1980s, there is a close relation between real growth and growth in per capita exports. Further, the long-run evidence clearly supports the conclusion that greater openness is associated with greater growth in per capita productivity. Perhaps this is due as much to the greater competitiveness of an open economy than to greater openness per se. Regardless of which is the precursor to the other, the two go together for most countries. Thus, for any country the issue is not whether to open up the economy, but rather the choice between growth and stagnation and how best to increase openness both economically and politically.

Another issue concerns the role, if any, that regional organizations, e.g., the Association of Southeast Asian Nations (ASEAN) and the South Asian Association for Regional Cooperation (SAARC), can play in moving countries toward greater openness and development. Do these organizations, as some

allege, tend to bring their members to the lowest common denominator and, thus, reduce specialization and trade, or do they provide opportunities for scale economies and learning-by-doing that in the long run hone each country's competitive edge, thereby allowing inter-regional or world openness and competition?

The Asian and Pacific developing countries must find ways of adapting and participating in the communication and information revolution and the products and production techniques made possible by it. This revolution has led to a rapid dispersion of changes in taste, to the homogenization of tastes, thus allowing larger markets to be more easily penetrated by multinational corporations, to a rapid spread of new technology, and to a more rapid obsolescence of existing technology. Export orientation is, thus, both more difficult and more possible. The flexibility and keeping abreast with the new management skills which are based on computer technology are essential in adopting such an orientation.

Often, the ability to adapt and participate in this continuing and dynamic process is a matter of acquiring and building on the requisite human capital. Although advanced in other ways, the Asian and Pacific developing region has many laggards in this respect, and much more will have to be done in education (see Table 11). Clearly, the Republic of Korea, Philippines, Taiwan and Thailand are making a major effort to be "ready" for the opportunities presented in this regard.

One benefit of being prepared to participate in the changing world technology is that large amounts of physical capital are not required for many of the newer activities. This is clearly an advantage for countries with large populations since even with a relatively modest educational effort and very low physical capital/labor ratios, the critical mass of trained people can be formed. It should be noted that these countries have the largest per capita income gaps and, thus, the most to gain from development of new and less physical capital-intensive products.

Nevertheless, to attract and nurture these footloose industries through direct foreign investment or indigenous ownership, there must be sufficient modern infrastructure in addition to the requisite human capital. The only role of government is that of giving proper incentives, providing the proper educational opportunities, and enforcing rules in a way that leaves little uncertainty about the nature and future of these industries. Countries that have achieved relatively high GDI ratios, that have an export orientation and have managed to make monetary, fiscal and exchange rate policies support that orientation, and that have proper educational support systems in place should have little difficulty in taking advantage of the opportunities presented by the communication and information revolution, as long as planners do not too often try to out-guess the market.

While the NICs appear to be in a good position to take advantage of the promise offered by the communication and information revolution, the other country groups will have to make a greater effort in this regard. Though the educational and policy framework seems to exist in Thailand and one or more of the

Table 11: Educational Efforts and Capital/Labor Ratios:
The Basis and Source of Future Development

	Educational Effort ^a 1983				Physical Capital/ Labor Force 1983 (\$ '000)
	Primary		Secondary	Higher Education	
	Male	Female			
Newly Industrializing					
Hong Kong	107	104	68	12	24.7
Korea, Republic of	104	102	89	24	11.1
Singapore	115	111	69	12	38.6
Taiwan		100	..	..	13.0
Southeast Asia					
Indonesia	118	112	37	4	2.2
Malaysia	100	98	49	4	10.9
Philippines	115	113	63	26	3.4
Thailand	101	97	29	22	2.6
South Asia					
Bangladesh	67	55	19	4	0.4
India	100	68	34	9	1.0
Nepal	100	43	22	5	0.4
Pakistan	63	33	16	2	1.3
Sri Lanka	103	99	56	4	1.7
Socialist Economies					
Burma		84	23	5	0.6
China, People's Rep. of	116	93	35	1	..
South Pacific					
Fiji		109	..	..	..
Papua New Guinea	65	55	11	2	..

.. = not available.

a Defined as the number enrolled divided by the number in the enrollment levels age group.

Sources: World Bank, *World Development Report 1986* (New York: Oxford University Press, 1986); Burnham O. Campbell, "Trade between Asian Developing Countries: Record and Prospects", *Asian Development Review*, vol. 4, no. 2 (1986), pp. 57-92.

necessary conditions appear to be met in the other Southeast Asian countries, more efforts will be required. The South Asian countries will require an even greater effort since the challenge is greater and the lags in response to improved conditions are longer. If the People's Republic of China maintains its present course, it will increasingly participate in the ongoing technological revolution, with effects not easy to determine but clearly important for the region.

While much of the responsibility will rest with policymaking in the region, the final outcome will also depend on the policies of the industrial countries. These will determine the nature and growth in world trade, the transfer of resources from the developed to the developing world, the real and nominal terms on which such transfers take place, and the commodity prices and the terms of trade faced by developing countries.

Central to all these issues is the U.S. budget deficit and the complementary trade deficit. Unless the U.S. trade deficit is reduced, the internal political effects of that deficit will encourage protectionism. However, the trade deficit cannot be reduced without a reduction in the government deficit.

Increased protection or currency depreciation will not offer more than a temporary solution as long as the budget deficit remains. Of course, the easy solution from the standpoint of the United States is to have an expansion in its exports led by growth in Japan and the EEC since this would reduce both the trade and budget deficits. Recent changes in real exchange rates are part of the bargaining process, and this has important implications for the Asian and Pacific developing countries. Hopefully, this problem can be resolved before the U.S. Congress moves to adopt protectionist legislation which would undermine the new round of the General Agreement on Tariffs and Trade (GATT) and lead to a trade war. However, balancing the U.S. budget is only one of the requirements to help promote a positive future for the Asian and Pacific developing countries. In addition, the U.S. and EEC agricultural policies that have adversely affected third countries must be changed, and the structural adjustments required by changing comparative advantage must be encouraged.

In the context of trade and protection, Japan is particularly important for the Asian and Pacific developing countries and must begin to make a contribution to the growth of manufactured and agricultural exports from these countries. The United States and the EEC account for almost all of the growth in exports of labor-intensive manufactures from the Asian and Pacific developing countries. However, Japan has just as high a capital/labor ratio as the United States and the EEC countries, and if markets were truly free, Japan would account for much more growth in labor-intensive manufactured exports from the Asian and Pacific developing region. As their capital/labor ratios increasingly diverge from those of the South Asian and Southeast Asian countries, the NICs should show the same expansion in labor-intensive imports from South and Southeast Asia.

The tendency of the major beneficiaries from trade expansion to view the process as one-way will have to be reversed if an external environment conducive

to openness is to be created in the years ahead. It must be recognized, however, that the internal environment and policies are even more important and that increased openness will pay dividends even if protection is a constraint on trade.

There is concern that the decline in productivity in member countries of the Organisation for Economic Co-operation and Development (OECD) and, thus, in growth rates during the late 1970s and through the mid-1980s is more than a temporary phenomenon. Some believe, for example, that it reflects a basic change in the social attitudes and demography of the industrial countries, and that of necessity it must lead to a long-run increase in protectionism. There now seems to be at least a partial negative reaction to the "welfare" state and to the relative decline in the number of persons entering the labor force in the industrial countries.

While there is a tendency to perceive the longer run ebb and flow of economic growth that has existed for over 150 years as a trend, it is more likely to have been the bottoming-out of a long-swing downturn. If so, the present slowdown is temporary, and for several reasons the economies of the United States and other developed countries can be expected to grow more rapidly during the next decade. This does not imply that the business cycle in the United States and the developed world will not continue to have more than a marginal effect on the economies of the Asian and Pacific developing countries. Rather, it suggests that there will be expansions as well as contractions, and that the average growth over the business cycle in the near future will be relatively greater than in the recent past.

This optimistic conclusion does not rule out the possibility, initially associated with the slower growth hypothesis, that the opportunities for greater growth in trade and, thus, per capita productivity are best between developing countries. While this would follow from the likely effects of the removal of their high trade barriers, it is also correct that if all resources are used efficiently in both developed and developing countries, growth will be greater in the developing countries, at least where the process is well under way since those countries are in a "catching-up" phase. Clearly, there is potential for growth among the Asian and Pacific developing countries. The challenge is to provide the necessary openness in their economies. Since the benefit from greater specialization and trade and from greater competition has been often convincingly stated, the lack of progress in this direction suggests that the political dimensions of the challenge are staggering.

Finally, over the next 30 years, there will be a worldwide demographic revolution. In the industrial countries, the population will age rapidly, with a steadily declining labor force entering the market following the passage of the tail-end of the "baby boom". A similar phenomenon has begun in some but not all developing countries. Where it has begun, the labor force entering the market will continue to increase in size for 10-30 years, at which time these countries will also begin to age. Among the Asian and Pacific developing countries, the timing of the advent of the decline will vary widely, with relatively large declines

in the labor force growth rate occurring in Hong Kong, Republic of Korea, Singapore and Thailand by the year 2000. However, for some time to come, the labor force growth rates in the Asian and Pacific developing countries and the industrial countries will diverge, the growth rate becoming zero in Japan but not in the United States, because of immigration within the next two decades.

An aging society can be expected to place more emphasis on consumption, and because of relative labor scarcity, on increasingly physical-intensive and human capital-intensive activities. The net effect should be growth in exports of labor-intensive consumer goods and services from the Asian and Pacific developing countries to the industrial countries, and later from the Asian and Pacific developing countries which make the demographic transition slowly to those making it more rapidly.

Trade in basic industrial commodities between the Asian and Pacific developing countries should also improve, since production of these goods will lose out to human capital-intensive activities in the industrial countries. Thus, ruling out the possibility that the immigration occurring in the United States will occur in Japan, or later in Hong Kong, Republic of Korea or Thailand, a symbiotic relationship which raises productivity could result from these diverging demographic patterns if trade policies permit. Here again, increased openness and macro-economic policies become relevant.

Falling Commodity Prices: Implications for Asian and Pacific Developing Countries

Kedar N. Kohli and Ifzal Ali*

In recent years, the prices of major agricultural commodities, metals and minerals, including crude oil, declined sharply, leading to a collapse of commodity markets in 1985 and 1986.¹ The movement in the terms of trade to the detriment of countries exporting primary commodities is of growing concern to many Asian and Pacific developing countries. This article attempts to assess the impact of falling commodity prices on these countries. First, it briefly analyzes the factors contributing to the decline in prices. Then, it examines the effects on the availability of foreign exchange and domestic resources for developing countries and considers the need for economic adjustments in these countries. Finally, it outlines the implications for multilateral development agencies and draws some conclusions from the discussion.

Factors Contributing to the Decline in Commodity Prices

In the past, upward and downward swings in the prices of primary commodities were in response to the forces of demand and supply which varied for the different commodities. A unique feature, however, of the recent trend in prices is that virtually all commodities have simultaneously experienced a major decline to levels that are the lowest recorded in the past several decades.² In all these cases, the basic reason has been that supply greatly exceeded demand. This situation is contrary to the predictions made less than a decade ago by several prestigious organizations, including the Club of Rome, that there would be major shortages of all commodities during the 1980s and beyond.

The reasons for the low prices vary among the major commodity groups. However, a factor that has affected all commodities is the low growth in demand in industrial countries which historically have been the principal consumers of

* Chief Economist, Asian Development Bank, and Economist, Economics Office, Asian Development Bank. The authors are grateful to their colleagues in the Bank for valuable comments on earlier versions of the article.

1. For example, from 1970 to 1983, the real price of wheat declined at an annual rate of 1 per cent, of rice by 1.3 per cent, and of maize by 2.6 per cent. See World Bank, Economic Analysis and Projections Department, *Price Prospects for Major Primary Commodities* (Washington, D.C., various issues).

2. The fall in nominal prices of primary commodities has been aggravated by an average annual increase of 6.5 per cent in the prices of manufactured goods between 1973 and 1985. Thus, the fall in real prices of primary commodities has been far greater than in nominal terms. See World Bank, Economic Analysis and Projections Department, *Price Prospects for Major Primary Commodities* (Washington, D.C., various issues).

raw materials in the world. The manufacturing sector, which uses most of the raw materials in these countries, has stagnated. Because of higher domestic production of many raw materials in industrial countries, their import demand for these materials has generally declined in recent years. The problem has been aggravated by the reduced demand for raw materials in many middle-income developing countries which experienced low or negative rates of economic growth in the 1980s.

The main factor contributing to the fall in prices of agricultural commodities has been the upsurge in production in developing countries, particularly in Asia, in the past decade. The improvements and expansion of irrigation and widespread use of modern technology have led to rapid increases in food production. Countries which have been traditionally large importers of food such as the People's Republic of China, India and Indonesia have become self-sufficient or net exporters of foodgrains. The production of other agricultural crops has also increased rapidly. At the same time, because of large subsidies, farmers in the United States and member countries of the European Economic Community (EEC) continue to have growing surpluses of food products and several agricultural raw materials. Thus, while overall world consumption has increased, import demand is far less than export supply resulting in growing stockpiles and a continuing sharp fall in all agricultural prices in the world market. World trade is also increasingly disrupted by discounted sales and counter trade arrangements which contribute to the uncertainty of real price trends.³

In the case of metals, both demand and supply factors have been responsible for the sharp fall in prices, especially in the past decade.⁴ On the demand side, concern about potential scarcity expressed a decade ago led to the development of lighter, thinner and stronger metal products.⁵ This shift was encouraged by space and defense-related research. Also, other cheaper materials such as plastics and fiber optics are replacing metals such as steel, copper and aluminum.⁶ More important, a rapid change is taking place in the pattern of production, especially in developed countries, where the metal-using manufacturing sector is shrinking while the service sector which makes only negligible use of metals is expanding. Even within the manufacturing sector, most of the expansion is in high-technology subsectors which use much less metal than the traditional product fabrication industries. As a result of all these developments, demand for many metals, especially in developed countries, has steadily declined.

3. It should be noted that for some agricultural commodities, particularly food crops, the amounts traded internationally are relatively small compared with world production and consumption. For example, only about 3 per cent of world rice production is traded. Consequently, world prices for these commodities will be highly sensitive to marginal changes in demand and supply.

4. For an excellent exposition, see Peter F. Drucker, "The Changed World Economy", *Foreign Affairs* (Spring 1986), pp. 768-791.

5. Eric D. Larson, Marc H. Ross and Robert H. Williams, "Beyond the Era of Materials", *Scientific American*, vol. 254, no. 6 (June 1986), pp. 34-41.

6. For example, 50 kilograms of fiber optic cables transmit as many telephone messages as would a ton of copper wire.

On the other hand, the supply of metals has continued to increase.⁷ New capacity has been added, particularly in many developing countries, both to meet increasing domestic demands and to earn foreign exchange. The existing producers, very often high-cost ones, have continued to maintain production as long as financial expenses are met. Furthermore, scrap has increasingly emerged as a competitor to new metal production. Unless a good part of the existing excess capacity is abandoned, the continued low demand for metals will keep prices depressed for many years to come.

Even in the case of fossil fuel the forces of demand and supply have driven down the prices which in real terms are at one-fourth the level prevailing three years ago. The powerful oil cartel, the Organization of Petroleum Exporting Countries (OPEC), has not been able to sustain the high prices that prevailed between 1980 and 1984.⁸ As a result of the upsurge in prices since 1973, world demand for oil fell sharply while production in non-OPEC countries increased far more rapidly than expected. The cartel was weakened because large producers in the Middle East wanted to restore their production nearer to their capacity levels and drive down the output of high-cost producers. As demand for oil picks up at the expense of other less efficient energy sources, the prices of fossil fuel may again increase, but at least in the present century real prices are not expected to be near the peak level prevailing in 1981.

The current depressed primary commodity prices are likely to result in a decrease in production among marginal producers. In addition, the switch in demand away from primary commodities may be slowed down as the economic pressure for substitution of the former by synthetics diminishes. However, it will take time for these forces to substantially raise prices from the low levels prevailing at present. Hence, at least for the next decade, it is reasonable to expect that primary commodity prices will, in general, remain depressed, much below those prevailing during 1970-1983 (see Table).

Implications for Foreign Exchange and Development Financing

Before examining the immediate and direct impact of the fall in primary commodity prices, it would be useful to consider three features that have emerged in many developing countries. First, developing countries have borrowed heavily abroad to finance their development efforts. Large foreign loans, most of which carry high real interest rates and short maturity, have led to very heavy debt-service burdens. Second, there has been a steady erosion in public sector resources available for development. While the burden of debt from domestic and external borrowing has grown, the income that has accrued to governments from investments financed by these borrowings has been small

7. R.H. Carnegie, *Outlook for Mineral Commodities* (New York: Group of Thirty, 1986).

8. The experience of the OPEC oil cartel is not different from that of other primary commodity cartels that attempted to maintain high prices by holding large stocks. Once the cost of holding stocks became excessive, these had to be liquidated leading to a collapse of prices.

and in some cases negative. At the same time, the recurrent expenditure resulting from past investment has continued to mount. The net result has been that resources available for development have steadily dwindled. In fact, in some developing countries, a stage has now been reached where virtually the entire public sector development expenditure is being financed through domestic and external borrowing. Third, most countries have been slow to adjust their exchange rates and have instead depended upon external assistance to meet their growing balance of payments deficits. Inappropriate exchange rates have discouraged exports and encouraged imports. Rather than increasing taxes or keeping development outlays within available budgetary resources, governments have relied on domestic borrowing to maintain current expenditure. As a result, the private sector, which remains the principal source of savings and foreign exchange earnings in most developing countries, experienced a lack of resources. Interest rates were kept low which discouraged private saving.

These three factors have led to disequilibrium in the balance of payments and the government budget and have been caused by highly distortionary trade, exchange rate, fiscal and monetary policy interventions.⁹ However, the balance of payments and government deficit problems have been aggravated by the declining commodity prices, the immediate and direct impact of which has been primarily twofold.

First, the export earnings of many developing countries have declined. The impact has been particularly severe on countries in Southeast Asia which depend heavily on primary commodities for their foreign exchange earnings.¹⁰ Given their heavy debt-service burden, the fall in foreign exchange earnings caused by the decline in primary commodity prices has greatly aggravated the debt problem. As a result, these countries have been forced to cut back on their imports, directly affecting their production and investment. Development programs had to be scaled down and governments have become more cautious and selective in incurring new external debt. The export earnings of Papua New Guinea and other South Pacific developing countries which export primary raw materials have been severely affected, while those of Bangladesh, Burma and Sri Lanka have also declined. However, as external assistance on highly concessional terms finances most of the development outlays of these countries the overall impact has been less severe. In the case of other South Asian countries, particularly India and Pakistan, while export earnings have to some extent declined, there has been a corresponding reduction in imports due to a drastic fall in the price of crude oil and other imported raw materials, especially edible oils. Their overall balance of payments position is therefore not seriously affected

9. For a detailed discussion of policy interventions, see World Bank, *World Development Report 1986* (New York: Oxford University Press, 1986).

10. Prices of many commodities are quoted in U.S. dollars. Hence, the depreciation of the dollar since September 1985 vis-à-vis the yen and European currencies has aggravated the situation for many developing countries. In fact, measured in yen and European currencies, the decline in prices of commodities has been very severe. Conversely, the realignment of exchange rates has led to sharp increases in the costs of imports of manufactured goods in terms of dollars for developing countries.

Commodity Prices and Price Projections in 1985 Constant Dollars

Commodity	Unit	Actual							Short Run			Long Run			January 1986 Projections	
		1970	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1995		2000
Energy																
Petroleum	\$/bbl	3.6	29.1	32.6	29.9	27.9	27.7	26.7	11.9	13.7	15.2	15.1	14.9	17.4	23.5	22.9
Coal	\$/mt	..	41.0	54.0	50.0	44.0	49.0	47.0	39.0	36.0	37.0	39.0	40.0	42.0	45.0	46.6
Food																
Coffee	\$/kg	315	329	268	297	287	320	321	390	313	280	281	285	288	295	311.0
Cocoa	\$/kg	185	249	198	167	210	241	225	185	180	171	167	165	172	182	194.5
Tea	\$/kg	300	213	192	186	231	348	198	181	197	208	213	217	225	234	241.1
Sugar	\$/mt	222	604	356	179	185	116	90	136	161	214	264	322	265	253	268.4
Beef	\$/kg	357	264	235	230	242	229	215	195	197	224	234	246	255	263	255.3
Bananas	\$/mt	453	362	382	361	425	373	389	359	356	354	352	349	335	321	273.5
Oranges	\$/mt	460	373	385	371	370	355	398	337	337	348	357	354	338	334	342.4
Rice	\$/mt	395	414	459	282	274	254	216	185	189	206	224	233	214	206	325.2
Wheat	\$/mt	172	182	187	160	168	167	173	141	119	130	141	147	136	133	147.9
Maize	\$/mt	160	120	124	105	135	137	112	87	100	104	103	100	95	94	112.4
Grain Sorghum	\$/mt	142	123	120	105	128	120	103	83	95	99	98	95	90	89	107.4
Fats and Oils																
Palm Oil	\$/mt	712	557	543	429	496	734	501	243	232	286	329	374	450	420	533.8
Coconut Oil	\$/mt	1,088	643	542	447	723	1,163	590	248	236	294	336	428	500	482	609.8
Groundnut Oil	\$/mt	1,037	820	991	564	704	1,024	905	518	498	508	540	579	600	530	666.6
Soybean Oil	\$/mt	841	571	482	431	522	729	572	336	322	352	382	410	475	440	547.0
Soybeans	\$/mt	321	283	274	236	279	284	224	189	180	192	197	200	203	200	243.1
Copra	\$/mt	616	433	361	303	491	715	386	162	154	191	219	278	325	312	396.1
Palm Kernels	\$/mt	460	330	302	255	362	532	326	121	115	144	164	209	244	234	297.8
Groundnut Meal	\$/mt	280	230	226	200	227	188	143	146	139	147	149	150	144	140	159.0
Soybean Meal	\$/mt	285	250	240	211	235	198	157	159	153	164	165	166	158	154	185.4

by the fall in commodity prices.¹¹ The Newly Industrializing Countries (NICs) in East Asia and Singapore, which are exporters of manufactured goods and importers of raw materials, have substantially benefited from low commodity prices.

Second, the falling commodity prices have affected the revenues of both the public and the private sectors.¹² The direct impact on the resources of the public sector has been through a reduction in the profitability of public sector enterprises. In Burma, where all major enterprises are government-owned, and in Indonesia and Malaysia, where the government owns most of the crude oil production and refining and also several rubber and oil palm plantations, the impact has been predominantly direct. But in most other countries, the impact has been mainly indirect. Low profitability of private enterprises has affected the tax revenues of governments. Income from export taxes has largely disappeared whereas falling imports have reduced the revenue from import duties, which is the principal source of tax revenue for many developing countries. The governments of Southeast Asian countries have been the most affected. Other countries have also been affected in varying degrees except for some countries in South Asia where the growing surplus on account of high domestic prices and falling import costs of oil and other raw materials has been mopped up by the public sector.

In sum, the recurring balance of payments and government budget deficit constraints have reached crisis proportions in some developing countries and are threatening their development process.¹³

Macroeconomic Implications

Indications are that the gross terms of trade will continue to remain adverse against primary exporting countries such as Indonesia, Philippines and Malaysia. Countries such as India and Thailand will gain temporarily from low petroleum and fertilizer prices but will have to contend with higher import costs because of currency realignments. While the immediate impact of these changes will be on the balance of payments, the impact in the shorter term will be on reduced resources available for development. The macroeconomic implications of the likely sharp deterioration in the gross terms of trade against many developing countries may be analyzed in terms of the impact on the volume of investment, the allocation of investment and the choice of techniques at the project level.¹⁴

The critical short-term objectives of adjusting to the adverse movement in the gross terms of trade are to ensure that the balance of payments situation

11. It is estimated that in 1986 India will save foreign exchange of \$1.5-2 billion because of the decline in prices of imported primary commodities.

12. Vito Tanzi, "Fiscal Policy Responses to Exogenous Shocks in Developing Countries", *American Economic Review*, vol. 76, no. 2 (May 1986), pp. 88-91.

13. Deepak Lal, "The Foreign-Exchange Bottleneck Revisited: A Geometric Note", *Economic Development and Cultural Change*, vol. 20, no. 4 (July 1972), pp. 722-730.

14. Vinod Thomas, *Linking Macroeconomic and Agricultural Policies for Adjustment with Growth* (Baltimore: Johns Hopkins University Press, 1985).

remains manageable and that domestic financial stability is maintained by containing the government budget deficit. Since the external debt problem makes it inadvisable to borrow externally to overcome the balance of payments deficit, export earnings net of debt service will need to be used to meet the import requirements of existing capacity. Capital imports would decline resulting in a reduction in the volume of investment. Aggregate demand policies curtailing aggregate investment and government expenditure will be the first set of instruments used to meet the challenge emerging from the external environment. The recent reassessments of the development programs of Indonesia and Malaysia provide good examples.

In terms of the Harrod-Domar growth model, given an overall capital-output ratio, a decrease in the volume of investment will lead to a decline in the growth rate. The conventional wisdom that is now emerging is that after or accompanying a decline in aggregate demand, steps must be taken to reduce the overall capital-output ratio. This is to be achieved through improved efficiency by rationalizing government policy whereby distortions are reduced or removed leading to resource reallocation into sectors enjoying comparative advantage and improving capacity utilization by alleviating supply constraints. A reduction in the overall capital-output ratio will dampen the impact of the lower volume of investment on economic growth. In addition, the improved efficiency of the economy will make manufactured exports more competitive, thereby increasing export earnings to alleviate the initial problem caused by the adverse movement in the terms of trade. This is essentially the rationale of the structural adjustment programs advocated by the World Bank.¹⁵ A critical assumption is that efficiently produced manufactured exports will find ready markets in developed countries.

The foregoing discussion suggests that developing countries will need to successfully meet four major challenges. First, they must intensify their efforts in the mobilization of domestic resources. Second, they must undertake policy reforms aimed at improving efficiency on a broad front. Third, they must endeavor to generate foreign exchange earnings from non-traditional exports. A precondition to successfully meeting these three challenges is the adoption of "right" macroeconomic policies, especially relating to exchange rates and inflation. Balance of payments problems are frequently the symptoms of commitments by governments to expenditures that cannot be financed. Hence, the fourth challenge is of finding a non-inflationary governmental role in the adjustment process. These concerns are reflected in the growing recognition in the 1980s that policies, and not projects, are the cutting edge of development.¹⁶

15. Fahrettin Yagchi, Steven Kamin and Vicki Rosenbaum, *Structural Adjustment Lending: An Evaluation of Program Design*, Staff Working Papers, no. 735 (Washington, D.C.: World Bank, 1985); and Deepak Lal, *The Real Effects of Stabilization and Structural Adjustment Policies*, Staff Working Papers, no. 636 (Washington, D.C.: World Bank, 1984).

16. Martin Wolf, "Timing and Sequencing of Trade Liberalization in Developing Countries", *Asian Development Review*, vol. 4, no. 2 (1986), pp. 1-24; and Mohsin S. Khan, "Developing Country Exchange Rate Policy Responses to Exogenous Shocks", *American Economic Review*, vol. 76, no. 2 (May 1986), pp. 84-87.

Sectoral Investment Responses

The sharp fall in commodity prices is not a short-term phenomenon. All forecasts suggest that prices of primary commodities will remain depressed for many years to come. Historically, the developing countries have emphasized investment for irrigation which in turn has been used mainly for the production of foodgrains, in particular, rice, the staple food in most of Asia. Supported by modern technology and external assistance, the Asian developing countries have achieved remarkable success in increasing food production. As noted earlier, the major importing countries of foodgrains have become self-sufficient, while the exporting countries, Thailand and Burma, have greatly enlarged their rice export capability. Since there are no major markets of rice outside Asia,¹⁷ the export prices have fallen sharply in recent years. The decline in prices of other foodgrains has also been considerable.

The present and projected international prices of rice and other foodgrains are so low that large-scale or medium-scale new irrigation projects are unlikely to be viable. The emphasis in future will have to be mainly on the improvement of existing facilities, better water management practices, more efficient use of inputs, and reduction of grain losses through better post-harvest and storage technology. The impact of these unspectacular but effective infrastructure innovations should not be underestimated. For example, the sharp decline in wastage of foodgrains in India is attributed to the introduction of small concrete storage bins, insecticides and three-wheel motorized carts that transport the harvest direct to processing plants. Appropriate "packaging" of projects should receive far more attention than hitherto. While the size of individual projects will be smaller, resources required to formulate them will be greater. At the same time, efforts must be increasingly directed towards meeting growing domestic needs for grains rather than exports which will further erode prices.¹⁸

Apart from foodgrains, the agricultural commodities that are important for many Asian and Pacific developing countries include rubber, edible oils, cotton and tea. World demand for rubber has stagnated, and increasingly countries have planted land with oil palm which has been much more profitable. Because of high productivity and low overhead costs, there has been an upsurge in the production of palm oil, unmatched by any other agricultural commodity. Malaysia and Indonesia have emerged as the largest producers in the world accounting for 80 per cent of world production in 1985 compared with only 20 per cent in 1965.¹⁹ However, since the output of other edible oils, particularly soybean and coconut oil, has also increased rapidly unmatched by an increase in demand, the prices of all edible oils have fallen sharply. The present price of palm oil is hardly

17. While most African and South Pacific countries need to import rice, their limited purchasing power constrains import demand.

18. Because of the wide spread between the c.i.f. price (used for a food-deficit country) and the f.o.b. price (used for a food-surplus country), a project could be viable when geared to meeting domestic needs but not viable for exports.

19. Food and Agriculture Organization, *FAO Production Yearbook* (Rome, various issues).

adequate to meet production costs.²⁰ Oil palm, being a tree crop, is at a disadvantage vis-à-vis soybean or groundnut (peanut) in that production cannot be varied annually to meet changing world demand. Greater attention should be given to improving the productivity of existing plantations. This would also apply to rubber and tea where the expansion of planted area is most unlikely to be profitable. Cotton prices have crashed in the past three years and the outlook is not very promising. In this case, the effort should also be towards improving productivity and quality in existing areas rather than expansion of the area under cultivation.

Investment in agriculture-related activities, such as fisheries, poultry, animal husbandry and dairying, is an important means of increasing income in rural areas. With the fall in prices of foodgrains that are used as animal feed, the economic viability of these subsectors could improve further insofar as the output is intended for domestic consumption. Also, as per capita incomes rise in some developing countries, the demand for these products should increase. There is also a growing world market for high-value seafoods, such as shrimp, which can be met through exports from developing countries.²¹ The prospects for investment in fisheries and animal husbandry are, therefore, promising.

Having reached the self-sufficiency threshold in major foodgrains such as rice, some developing countries will find that a lack of demand will constrain the future growth of these crops. The challenge will be to maintain growth in agriculture while increases in the output of major foodgrains slows from 4-5 per cent to 2-3 per cent. New sources of growth need to be identified and developed efficiently to avoid enlarging a high-cost agricultural base that would jeopardize the future growth of employment and income.

It must be recognized that to meet future demand for rice efficiently, judicious investment and pricing policies will be required. Investment in irrigation faces rising costs since with each completed project countries must turn to more complex, difficult and expensive schemes to expand the irrigated area. This implies that new irrigation projects must be carefully evaluated to ensure that they are economically justified while strengthening the management and providing funds for operations and maintenance of existing irrigation systems. The emphasis must be on the formulation of a strategy that encourages efficient food production. To sustain high agricultural growth rates, developing countries must fully exploit the potential for agricultural diversification away from an excessive dependence on food and a few cash crops. This will require a combination of policies to encourage rational economic decision-making on the part of producers and technical innovation in alternative crops.

Achieving agricultural diversification will be a massive and far more complex task than achieving the self-sufficiency threshold in food, particularly rice.

20. The Table (pp. 48-49) indicates that the real price of palm oil between 1986 and 2000 will be substantially below the prices realized in 1984 and 1985 and those projected in January 1986.

21. The major markets for shrimp are in Japan, United States and Western Europe, where there are stringent quality and health requirements which would deserve special attention in exporting developing countries.

This will require the successful introduction of a variety of new cropping systems and a more sophisticated monitoring of relative incentives for farmers to produce rice and other crops. The immediate challenge will be to offer alternatives which financially and economically are at least as attractive as rice. This transition from a rice dominated to a diversified cropping pattern, so essential for maintaining the growth momentum in agriculture, will require careful planning. The conditions to accommodate this transition, including the availability of quality seeds in adequate quantities, well-prepared extension services and an efficient processing and marketing mechanism, must be ensured. Despite these reservations, a systematic approach to the promotion of non-rice food crops appears to offer a reasonable promise for maintaining the dynamics of the agriculture sector and improving income levels, nutritional standards and welfare.

Apart from the factors already mentioned, crop diversification will require a rapid buildup of rural infrastructure such as roads, storage tanks and small-scale irrigation. Given the resource constraints facing developing countries, there is an urgent need to reorient development programs in rural areas so that less capital-intensive and appropriate intermediate technologies are used. The use of appropriate technology to provide physical and social infrastructure and services such as roads, health, sanitation and drinking water to rural areas assumes increasing importance in the changed circumstances. It is likely that a renewed effort to meet these long-standing needs will require significant departures from past thinking and programs.

In general, opportunities for agricultural development based on rice and export staples will be relatively unfavorable, and in some areas massive adjustments will be required. The internal terms of trade of most developing countries will be biased against the farm sector, thereby decreasing the attractions of agricultural employment. At the same time, the availability of cheaper food and raw materials will stimulate urban activities. These trends will accelerate rural-urban migration. Unless suitable policies are formulated, it is likely that the migrants will crowd into metropolitan centers seeking jobs in the informal service and manufacturing sectors. This, in turn, will tend to result in substantial diseconomies from congestion and pollution. It is, therefore, desirable that greater attention be given to planning at the inter-regional and local levels to provide alternative employment and income-generating activities. Although policies will be country-specific, the suggested strategy of pre-emptive decentralization is likely to be widely applicable. Investment could range from physical infrastructure for the development of regional growth centers to the provision of seed capital through development financial institutions for small-scale industries and crafts to ensure broad-based development of the village economy. Rural incomes could also be increased through crop diversification, animal husbandry and aquaculture. The improvement of transportation and communication links will also be desirable to enable peripheral areas take advantage of potential trade complementarities. This will call for an integrated approach to rural development.

At the national level, a steady fall in the real prices of primary commodities implies that prices of manufactured goods — whose import price index is used as a deflator — will continue to increase in relative terms. This, in turn, indicates that primary producers should provide an increasing amount of their output to obtain one unit of imported manufactured goods. Therefore, a continued dependence on manufactured imports would make producers of primary commodities poorer, suggesting that developing countries should embark on the selective production of manufactured goods in which they have a comparative advantage.²² It is important that they produce such goods efficiently and at low cost; many of the goods currently being produced are at high cost and of low quality and cannot compete in international markets.

Achievement of industrial growth when investible resources are scarce and the domestic market is sluggish will require a basic reorientation in industrial policy towards the establishment of an efficient and competitive industrial system. This implies the strengthening of export incentives and efficient import substitution rather than catering to a highly protected captive market. It is increasingly recognized in developing countries that the reorientation of industrial policy has three main elements. First, the system of investment licensing should be modified to function more as a promoter of efficient investment rather than as an agent of restrictive regulation. Second, there must be a change from a system of quantitative restrictions on imports to a greater reliance on tariffs. Third, exchange rates should reflect a macroeconomic response in the adjustment process to changes in the world economy.

The sharply increasing dollar costs of imported manufactures resulting from currency realignment will make the production of manufactured items economically viable. In addition, if the balance of payments problems facing developing countries lead to depreciation of their currencies, the production of manufactured goods will also become financially viable. If, at the same time, there is sufficient and growing demand emanating from the agriculture sector, the production of many manufactured goods could be sustained over time with reduced unit costs resulting from better utilization of capacity and/or economies of scale.

In the energy sector, which is highly capital-intensive, the development of energy sources has included hydropower, gas and coal. In the past, because of high growth rates of gross domestic product, demand for commercial energy increased rapidly and sharp increases in oil prices made the development of energy resources urgent and imperative. In the near future, both because of slow growth in output and low prices of oil, there will be less pressure on the expansion of domestic energy sources. Because of low oil prices, the relative economic viability of oil-based steam thermal generation plants is likely to improve compared with large hydropower projects, and it may become worthwhile to use the former for base-load operations instead of standby facilities as has been

22. Bela Balassa, "Policy Responses to Exogenous Shocks in Developing Countries", *American Economic Review*, vol. 76, no. 2 (May 1986), pp. 75-83.

increasingly done in recent years. Although gas production and transmission projects will remain economically viable, the feasibility of coal-based power projects will greatly depend upon transportation costs which, in turn, will be influenced by the proximity of power plants to pitheads and consumption centers. Given the highly capital-intensive nature of the power sector, the dangers of the "crowding-out" effect are great. While the recent fall in petroleum prices reduces the cost of energy, demand management should ensure that increases in capacity requirements to meet demand growth do not crowd out investment elsewhere. Improved capacity utilization and reduction in systems losses in the power sector will also have to receive greater attention than hitherto.

Falling commodity prices have no direct impact on the infrastructure sector. However, by changing the relative gains of different productive sectors, falling primary commodity prices will indirectly affect the profitability of infrastructural investment. In the case of roads, for example, the benefits are measured in terms of reduced vehicle operating costs. These benefits will be reduced as a result of the lower economic price of fuel. However, the overall impact on project viability will not be very significant. Except in some countries where the road infrastructure is still rudimentary, the shortage of development funds would, however, require that greater attention be paid to the maintenance and improvement of the existing network. The exceptions would be rural roads, which are still inadequately developed in a number of countries, and social infrastructure, where greater emphasis should be placed on improving the quality of services. In most countries, social services in rural areas are not adequately developed and require special attention.

Multilateral Development Agencies

The macroeconomic, sectoral and project implications of the adverse movement in the gross terms of trade against developing countries will influence the activities of multilateral development agencies, including multilateral development banks. For example, the reduced absorptive capacity in developing countries arising from lower aggregate domestic saving for investment provides a part of the explanation for reduced lending in 1985 by multilateral development banks to Asian developing countries. In the light of the fundamental changes in the external economic environment facing developing countries, the multilateral development banks need to modify their objectives, strategies and operational instruments. Specifically, they must review and adjust their volumes and modalities of lending, sectoral allocations and their approaches to the formulation, identification and selection of projects.

As indicated earlier, the immediate macroeconomic impact of falling primary commodity prices on the balance of payments and government budget deficits is likely to lead to a curtailment of aggregate demand. The International Monetary Fund (IMF), which is traditionally concerned with these issues, has

provided financial support for overcoming short-term balance of payments disequilibria. Its standby assistance and, more recently, its structural adjustment facility have been used for macroeconomic and structural adjustments to overcome balance of payments problems and achieve faster growth.

In the light of the pressing need to create a favorable macroeconomic and sectoral policy environment, the World Bank has initiated lending to support broad-based policy reforms. It has done so by a general restructuring of its lending operations in favor of non-project lending. In addition, the multilateral development banks are intensifying their economic and sectoral analysis for a better understanding of the adjustment needs and for conducting beneficial policy dialogue with their developing member countries. Although assistance from multilateral development banks to help improve the policy environment in developing countries through structural adjustment, sector and program loans is expected to increase, project loans will remain a principal mode of lending.

The decline in commodity prices would affect the proportions of project and non-project assistance in the total lending and also the sectoral allocations of multilateral development banks. Sector and program loans would become increasingly important, requiring the formulation of a comprehensive methodology for the evaluation of proposals under these forms of lending. It will be necessary to ensure that such loans are consistent with agreed sectoral and macroeconomic objectives, as reflected in national plans and strategy documents. It would also be useful to assess the contribution of these loans to the alleviation of specific foreign exchange and budgetary problems, if such considerations influence the volume and timing of disbursements. However, as indicated earlier, project lending will remain an important form of lending for many sectors and to several countries. Industrial projects, which are likely to become increasingly important, especially in Southeast Asian countries, are particularly suited for project loans. And multilateral development banks could play an important role in fostering such investments.

The shrinking budgetary resources, on the one hand, and the likely non-viability of many costly agricultural and mineral projects, on the other, would require some reorientation in investment in developing countries and in the activities of multilateral development banks. The emphasis should be on the rehabilitation and improvement of existing facilities, not only because the benefit-cost ratios of such projects are high but also because they require smaller amounts of new development funds and because the benefits are realized quickly. Furthermore, the focus of projects in the agriculture sector will increasingly shift from specific commodities to the improvement of incomes of the rural population. The experience of large-scale, "blueprint" rural development projects suggests that unless carefully designed, their direct benefits are few and they tend to be liabilities on the government budget. Therefore, greater attention should be given to small-scale, low-cost and skills improvement schemes and to adaptive longer term planning. In addition, concerted efforts should be made for agricultural development through crop diversification with emphasis on fruit

and vegetable growing, fisheries, poultry, animal husbandry and dairying.²³ This comprehensive approach to rural development will require careful packaging of projects at the village level which may be more appropriately financed under program and sector loans. Considering the resource constraints facing many developing countries, rural development programs must be reoriented from capital-intensive investments towards the promotion of appropriate intermediate technologies.

There is also considerable scope for the rehabilitation and improvement of existing facilities in other sectors, particularly manufacturing, transport and energy. In most countries, existing assets in these sectors have not been properly maintained. As a result, the full benefits from those investments are not being realized. At a time when investible resources are limited, a reorientation towards fuller utilization of existing assets is urgent. Multilateral development banks can play a valuable role by helping countries improve the efficiency and effectiveness of existing investments through sector and program loans. Apart from financing current inputs, program lending should enable fuller utilization of existing capacity and enhance productivity in priority sectors through modernization and rationalization. However, while this is generally recognized in the policies of multilateral development banks, most of their program loans have been for current inputs such as fertilizers and pesticides.

An acute shortage of budgetary resources would require that projects which mainly benefit the private sector should be excluded from the public sector or be so designed to allow an increasing part of local costs to be financed by development finance institutions or commercial banks. A shortage of budgetary resources would also require that, as far as possible, the full costs of goods and services provided by the government and public sector enterprises should be recovered from the beneficiaries. While governments are becoming increasingly aware of the importance of cost recovery, this objective can be achieved only through the implementation of a well-formulated program encompassing tariff, efficiency and productivity considerations.

Developing countries have been increasingly concerned about the methodology adopted by multilateral development banks to judge the economic viability of projects. Farm support programs in developed countries have distorted the global resource allocation in agriculture, depressed world market prices and undermined otherwise profitable agricultural investment opportunities in developing countries.²⁴ Since the methodology for the economic analysis of projects used by multilateral development banks is based on valuing inputs and outputs in border prices,²⁵ it has been argued that farm support pro-

23. Crop diversification requires systematic research on the integration of production techniques, price policy and marketing.

24. J. Zietz and A. Valdes, *The Costs of Protection to Developing Countries: An Analysis of Selected Agriculture Products*, Staff Working Papers, no. 769 (Washington, D.C.: World Bank, 1986).

25. I.M.D. Little and J.A. Mirrlees, *Project Appraisal and Planning for Developing Countries* (London: Heinemann, 1974).

grams in developed countries which distort border prices should not be allowed to undermine the support by multilateral development banks for agriculture in developing countries.

In this context, three issues merit consideration. First, it could be argued that multilateral development banks should promote global efficiency in production by adopting hypothetical non-distorted border prices rather than actual border prices in the economic analysis of projects. Apart from the difficulty of determining hypothetical non-distorted border prices, the fundamental issue is that neither multilateral development banks nor developing countries can take substantive action to eliminate farm support policies in developed countries. Hence, the notion of competitive advantage which recognizes existing distortions, rather than comparative advantage which is associated with an imaginary non-distorted world, becomes more relevant. Nevertheless, if investments in projects are based on hypothetical non-distorted border prices but the increased outputs have to be sold at much lower border prices, the consequences for developing countries would be catastrophic. Second, the use of actual border prices is a recognition of reality; they reflect opportunities for transforming commodities in world markets and it is these realities that should guide investment decisions. Third, in the economic analysis of projects, the projected world prices of commodities are considered as given. This assumption is generally valid if the output from a project or a group of projects has no influence on the determination of these prices. However, for some commodities, the increased output in developing countries — as in the case of rice, rubber, palm oil and tin — could have a direct impact on prices in the world market. When assistance from multilateral development banks involves such commodities, the future demand and any impact on prices should be included in the economic analysis of projects.²⁶ In sum, the methodology adopted by multilateral development banks for the economic analysis of projects which emphasizes economic efficiency and focuses on their net contributions to the economy is appropriate and does not warrant change.

Conclusion

During the past several years, the secular decline in prices of many commodities has been unprecedented and the low prices are likely to continue into the next decade. In the light of adverse external circumstances, many developing countries will have to undertake policy reforms at the macroeconomic, sectoral and project levels to compete in world markets. There is a growing recognition of the importance of a greater reliance on macroeconomic policies to im-

26. It has been estimated that an increase in Indonesia's demand for imports of 1 million tons of rice would raise the world price of rice by \$50 per ton. See C.P. Timmer, "Food Price Policy in Indonesia" (Cambridge, Mass.: Harvard University, March 1986), mimeographed. Thus, the change from Indonesia's position as importer of 2 million tons of rice in 1980 to exporter of 0.5 million tons in 1985 could well have accounted for a decline of \$125 per ton in the world price of rice.

prove efficiency. These include the avoidance of overvalued exchange rates, maintenance of a relatively low and uniform rate of effective protection for the manufacturing industry, avoidance of underpricing of agricultural products, positive real interest rates, avoidance of unjustified increases in wage rates, use of cost recovery principles in pricing infrastructure services, and avoidance of high inflation. There is also a growing realization among developing countries that the macroeconomic policy environment is crucial for a successful growth process. This has led to trade and economic liberalization. But it must be recognized that there is no conflict between such liberalization and agricultural and industrial policies which emphasize incentives (not controls) and the correction of market distortions.

As a result of falling commodity prices, it will be increasingly difficult for new traditional capital-intensive agricultural and mining projects in developing countries to be economically viable. Also, since world prices are at a record low and future prospects are not very promising, any further investment in commodities for exports would need very careful consideration. However, since the majority of people live in rural areas, there will still be a need for cost-effective projects to improve living conditions of the rural population. This calls for an integrated approach to rural development, involving not only the production of food and cash crops but also other activities such as improvement of existing facilities, higher productivity of existing investments, reduction in losses, greater processing and more economic use of raw materials, and improved transport. In addition, since rural-urban migration may be anticipated as a result of falling primary commodity prices, attention should also be given to planning at the inter-regional and local levels to provide alternative employment and income opportunities.

The fall in commodity prices has greatly affected the balance of payments of developing countries and the budgetary position of governments. Greater emphasis should therefore be placed on projects which promote exports of non-traditional commodities or reduce imports and which require less budgetary resources. While the private sector should be encouraged in industrial production, budgetary support to public sector undertakings should be reduced or eliminated. Development finance institutions and commercial banks should provide greater financial assistance for agricultural and industrial projects. Furthermore, governments should give priority to the rehabilitation and improvement of existing facilities which make relatively lesser demands on the development budget and are cost-effective. However, policies must be implemented to ensure that costs of goods and services provided by governments are adequately recovered from beneficiaries and to help bring about greater efficiency, cost consciousness and sound management in public sector institutions.

Energy and Economic Development: Experience and Issues in Developing Asia

Jayanta Madhab*

Since the early 1970s, the world economy experienced a series of difficulties resulting in sluggish economic growth. An inflationary trend was followed in late 1973 by a sharp increase in the price of oil and a consequent recession in developed countries. The oil-importing developing countries faced growing balance of payments deficits because of their rising import bills and declining demand for their exports in industrial countries.

Some Asian developing countries responded to the difficulties rather well compared with countries in other developing regions of the world. However, their efforts towards economic recovery were thwarted by the second increase in oil prices in 1979 which led to a more severe and longer world recession. Some developing countries took painful measures in adjusting their economies to the two oil shocks and appeared poised for longer term growth.

Although the oil crisis brought about major changes in the world energy environment, many Asian developing countries did not respond quickly and significantly to the first oil shock. In fact, most of the countries pursued strong industrialization policies which suggested that they did not envisage the possibility of a second major increase in oil prices. However, the second oil shock induced a fuller recognition of the implications for economic growth. Many countries adopted more responsive policies and measures in energy demand and supply management. The supply and demand systems for energy became more diversified and related market institutions were transformed significantly. Exploration activities led to increased supply of energy and technological changes facilitated the expansion of new and renewable energy supplies. On the demand side, higher efficiencies in the consumption of energy were achieved together with a perceptible shift away from oil.

In the mid-1980s, a reversal of the trend in oil prices gave rise to new uncertainties, calling for a reassessment of economic policies and development strategies. The decline in oil prices in 1985/86 brought about new challenges for developing countries. The Asian developing countries, however, have so far hesitated in making strong and determined responses. In general, they have adopted a "wait-and-see" attitude while they ascertain the benefits and costs of possible actions and evaluate the changed situation.

* Energy Adviser, Asian Development Bank.

This article attempts to assess the impact of developments in the energy sector on the prospects for economic growth in the Asian developing region. It briefly discusses recent trends in the world economy that affect the Asian developing countries, particularly their energy sectors. It then examines the relationship between energy development and economic growth and outlines the possible directions for future energy policy and activities in the Asian developing countries.

Recent Developments in the World Economy

In recent years, dramatic changes have occurred in the world economic environment which affect the energy sector in the Asian developing countries. These are declining prices of commodities, including oil, low international nominal interest rates, major currency realignments in relation to the U.S. dollar and rising protectionism.

The decline in the prices of primary commodities is likely to have far-reaching effects on most Asian developing countries. The World Bank's price index of 33 major commodities declined by 20 per cent during 1981-1985 and is projected to show a further decrease.¹ The South and Southeast Asian countries, which depend heavily on primary commodities for their export earnings, would be the most adversely affected. For example, this dependence is 35 per cent for India, 43 per cent for Malaysia, 35 per cent for Pakistan, 49 per cent for the Philippines, 60 per cent for Sri Lanka and 68 per cent for Thailand. Countries that depend mainly on one or two commodities would be most seriously affected. Moreover, the decline in commodity prices has been accompanied by increases in the prices of imports of manufactured goods, aggravating the already adverse terms of trade of many countries.

Between November 1985 and June 1986, the price of oil fell by nearly 60 per cent. The decline has been of direct benefit to oil-importing countries in their balance of payments. As the price elasticity of demand for oil in the short term is low, a significant proportion of the reduced oil bill has been translated into lower foreign exchange costs for oil imports. Assuming minimal changes in volume and an average price of \$13.5 per barrel, the annual import bill for oil in 1986 would be 40-50 per cent lower than in the early 1980s. On this basis, in the Asian developing region, the Republic of Korea would benefit the most with a saving in foreign exchange of nearly \$3 billion (see Table 1). Savings among the other countries would also be substantial: India (\$800 million), Philippines (\$800 million), Thailand (\$700 million), Pakistan (\$500 million), Bangladesh (\$100 million) and Sri Lanka (\$100 million).

However, while lower oil prices would reduce import bills, they could also have adverse effects on oil-importing countries. Remittances from migrant

1. World Bank, *Quarterly Review of Commodity Markets* (Washington, D.C., July 1986).

Table 1: Hypothetical Annual Savings from Decline in Oil Prices in Oil-Importing Asian Developing Countries, 1986

	Net Oil Imports (million barrels) 1985	Crude Oil Imports			Savings
		at \$28 per barrel	at \$13.5 per barrel (\$ billion)	Gain	% of 1985 Export Earnings
Bangladesh	8	0.2	0.1	0.1	11
India	57	1.6	0.8	0.8	10
Korea, Republic of	193	5.4	2.6	2.8	9
Pakistan	33	0.9	0.4	0.5	20
Philippines	52	1.5	0.7	0.8	17
Sri Lanka	12	0.3	0.2	0.1	8
Thailand	47	1.3	0.6	0.7	10

Source: J.M. Dowling, Jr., J.P.A. Verbiest, J. Sheerin, C.N. Castillo, and S. Montreevat, "A Short- and Medium-Term Perspective for Development in the Asia-Pacific Region", Asian Development Bank, Economics Office (mimeographed).

workers in the Middle East oil-exporting countries form a major source of foreign exchange revenues for many Asian developing countries.² For example, in Bangladesh and Pakistan, workers' remittances, mostly from Middle East countries, account for 80 and 95 per cent, respectively, of the total value of their merchandise exports. Lower oil prices would bring about a decrease in the foreign exchange earnings from remittances. As a result, the benefits from lower oil prices to the countries concerned would be significantly eroded and some could well be net losers. For countries such as the Republic of Korea, the benefits would be lower than initial expectations because remittances from, merchandise exports to, and construction contracts in the Middle East oil-exporting countries have declined due to the economic slump in these countries.

In the oil-exporting countries such as Indonesia and Malaysia, the fall in oil prices resulted in a substantial loss in export revenues (see Table 2). Assuming an export volume at the 1985 level and a price of \$13.5 per barrel, the loss in foreign exchange earnings would be \$3.5 billion in Indonesia, equivalent to more than 20 per cent of export earnings. In Malaysia, the loss in foreign exchange earnings would be \$1.7 billion, representing 17 per cent of export earnings.

2. M.G. Quibria, "Migrant Workers and Remittances: Issues for Asian Developing Countries", *Asian Development Review*, vol. 4, no. 1 (1986), pp. 78-99.

Table 2: **Hypothetical Annual Loss from Decline in Oil Prices in Oil-Exporting Asian Developing Countries, 1986**

	Net Oil Exports (million barrels) 1985	Export Earnings			Loss
		at \$28 per barrel	at \$13.5 per barrel (\$ billion)	Loss	% of 1985 Export Earnings
Indonesia	238	6.7	3.2	3.5	21
Malaysia	113	3.2	1.5	1.7	17
China, People's Republic of	208 ^a	5.8	2.8	3.0	12

a Author's estimate.

Source: J.M. Dowling, Jr., J.P.A. Verbiest, J. Sheerin, C.N. Castillo, and S. Montreevat, "A Short- and Medium-Term Perspective for Development in the Asia-Pacific Region", Asian Development Bank, Economics Office (mimeographed).

In the first half of the 1980s, there were two major changes in world money markets. First, interest rates fell sharply between 1980 and 1985. From an average of 14.2 per cent in 1980, the three-month London Interbank Offered Rate (LIBOR) for the U.S. dollar fell to an average of 8.4 per cent in 1985 and declined further to 6.5 per cent by mid-1986. Assuming that interest rates in 1986 averaged 1.5 percentage points below their 1985 levels, the Republic of Korea would have savings on interest payments amounting to about \$450 million in 1986 while the savings of Indonesia, Malaysia and the Philippines would be \$150-200 million each. Except for India, however, lower interest rates would not have a significant impact on the South Asian countries because most of their borrowing has been on concessional terms. Second, the currency realignment has also had an adverse impact on the external debt and the cost of debt servicing for Asian developing countries. A realignment of currencies since September 1985 resulted in the appreciation of the yen against the U.S. dollar of about 50 per cent in the period to July 1986. The impact of the appreciation of the yen on the trade-weighted exchange rate of the Asian developing countries has been significant, ranging from 5 to 6 per cent in South Asia to over 10 per cent in East and Southeast Asia.

There have been perceptible changes in world trade in the first half of the 1980s. While tariff rates in industrial countries have generally declined, there has been an increasing use of non-tariff barriers, voluntary export-restraint

agreements and quotas.³ These restrictive measures mostly affect exporters of manufactured goods, particularly the export-oriented developing countries in East Asia. Also, subsidies by developed countries on their exports of primary commodities have affected the Asian developing countries which depend on few primary commodities for their export earnings.

Developments in the Energy Sector

In general, since 1973 most Asian developing countries achieved relatively high rates of economic growth. This is reflected in the overall growth of consumption of primary energy estimated at about 6 per cent in 1973-1985 (see Table 3). It is estimated that the production of primary energy in the region

Table 3: **Growth Rate of Real Gross Domestic Product
and Primary Energy Consumption**
(Percentages)

	Average Annual Growth Rate of Real Gross Domestic Product			Average Annual Growth Rate of Primary Energy Consumption		
	1974-1979	1980-1985	1974-1985	1974-1979	1980-1985	1974-1985
Bangladesh	6.6	3.3	4.9	8.0	7.6	7.8
China, People's Republic of ^a	5.5	9.9	7.7	7.0	4.3	5.7
India	3.4	4.8	4.1	5.0	5.6	5.3
Indonesia	7.1	5.2	6.1	14.4	6.6	10.4
Korea, Republic of	9.4	5.8	7.6	10.9	5.2	8.0
Malaysia	7.3	5.4	6.3	10.2	9.0	9.7
Pakistan	5.0	6.7	5.9	6.8	8.6	7.7
Philippines	6.4	0.4	3.4	3.9	-1.9	0.9
Sri Lanka	5.5	5.2	5.4	1.4	3.4	2.4
Thailand	7.4	5.4	6.4	6.0	4.6	5.3

a Refers to Net Material Product.

Sources: Asian Development Bank, *Key Indicators of Developing Member Countries of ADB* (Manila, July 1986); and Asian Development Bank, *Energy Indicators of Major Developing Member Countries of ADB* (Manila, forthcoming).

3. Kim Kihwan, "Trade Negotiations and Developing Countries in the Asian and Pacific Region", *Asian Development Review*, vol. 4, no. 2 (1986), pp. 37-56.

has been growing at a rate slightly faster than that of consumption, suggesting that the Asian developing countries have the capacity to balance the supply and demand for energy in the region.⁴ This is mainly because there are net exporters of energy in the region, namely, Brunei, People's Republic of China, Indonesia and Malaysia.

Coal is the dominant source of energy in the region, accounting for about 60 per cent of commercial energy consumption, followed by oil at about 30 per cent. Hydropower and natural gas account for the remainder. Although the oil-importing countries have had to make major adjustments in the composition of their energy consumption because of the high cost of oil, the overall regional composition has not changed significantly over the past decade (see Figure 1). This has been partly because the larger energy consumers, the People's Republic of China and India, depend heavily on coal for their needs and partly because non-commercial energy sources continued to account for about one-third of total energy consumption in the region.

Developments in the energy sector in the Asian developing countries since 1973 have been greatly influenced by their energy resource endowment, socioeconomic factors and economic policies. Their potential energy resources largely determined their energy development policies and levels of self-reliance in energy.

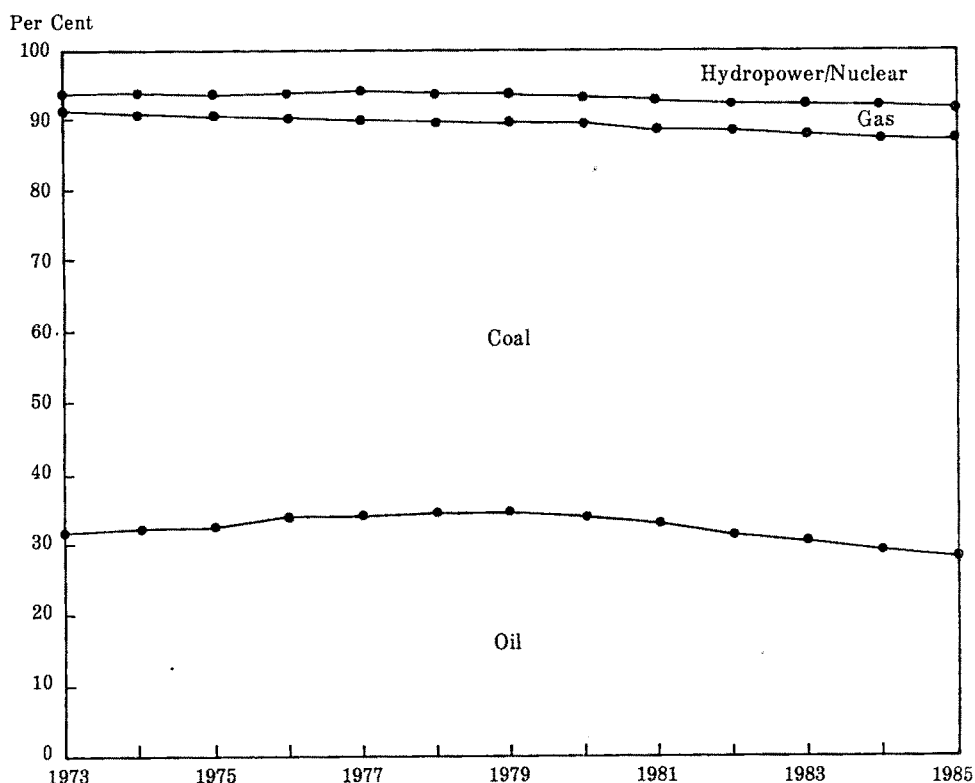
Energy and the Overall Economy. Considering the existing state-of-the-art in energy economics, only a partial equilibrium analysis can be carried out of the relationships and linkages between energy and the overall economy. The available data indicate that in the Asian developing region, energy consumption grew at a faster rate than gross domestic product (GDP) during 1973-1979 (see Figure 2). However, after the second oil shock in 1979, the growth in energy consumption slowed down, though consumption in South Asian countries continued an upward trend.

The level of energy consumption per capita, however, varied significantly among countries, indicating that the consumption of commercial energy is higher with higher levels of income per capita (see Table 4). The data also show that there is a close relationship between the level of economic development and the consumption of non-commercial energy (see Table 5). The relationship between the consumption of commercial energy and economic growth and the significance of non-commercial energy suggest that the energy sector in the Asian developing region is likely to grow at a rapid rate.

In general, the Asian developing countries have taken considerable time to reduce their energy intensities in GDP, i.e., the amount of energy used to produce one unit of GDP. Most of the energy conservation measures introduced by Asian developing countries after 1973 resulted in lower energy intensities

4. The discussion in this article refers to only those countries for which relevant data are available. References to "region", therefore, reflect that coverage.

Figure 1: Composition of Total Commercial Energy Consumption of Selected Asian Developing Countries (Percentages)

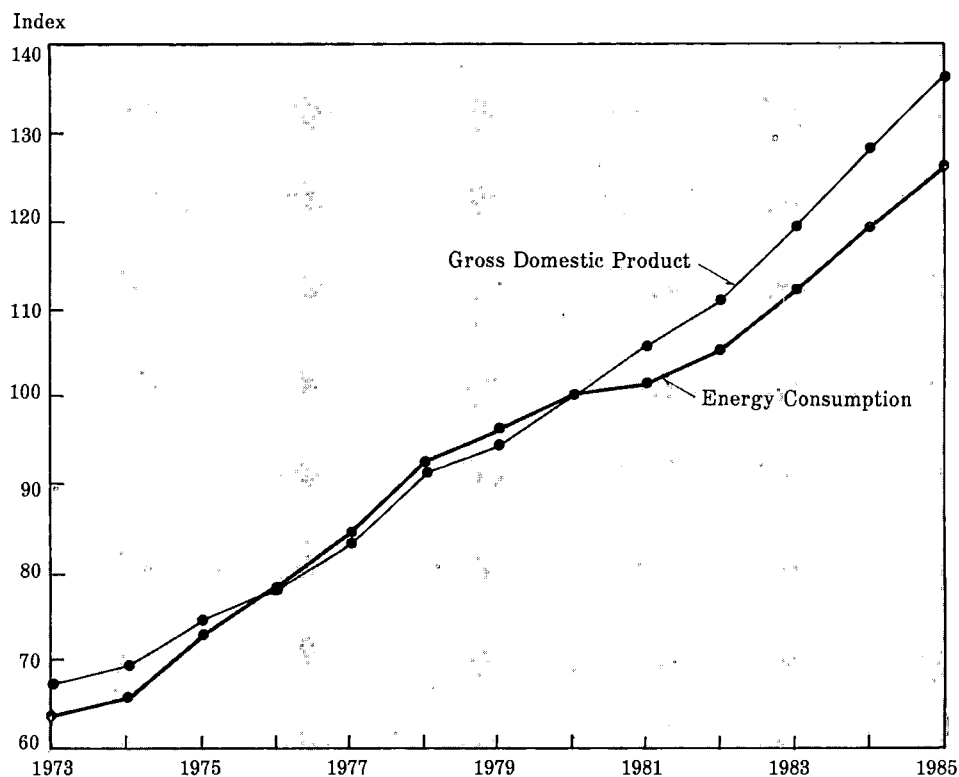


Source: Asian Development Bank, *Energy Indicators of Major Developing Member Countries of ADB* (Manila, forthcoming).

only after the second oil shock in 1979. Also, there were significant variations among countries in the decline of their energy intensities. Their performance suggests that three main factors influenced their ability to conserve energy, namely, their energy resource endowment, stage of industrialization and sociocultural characteristics.

The energy-importing and relatively more industrialized countries such as the Republic of Korea experienced delayed responses in reducing their energy intensities (see Figure 3). In fact, the energy intensity of the Republic of Korea increased after the first oil shock in 1973 before declining in the 1980s, although it remained slightly higher than the level in 1973. This trend was due to the emphasis placed on energy-intensive heavy manufacturing as the country gave

Figure 2: Growth of Energy Consumption and Gross Domestic Product
(1980 = 100)



Sources: Asian Development Bank, *Key Indicators of Developing Member Countries of ADB* (Manila, July 1986); and Asian Development Bank, *Energy Indicators of Major Developing Member Countries of ADB* (Manila, forthcoming).

higher priority to rapid industrialization and export growth than to the rationalization of energy use.⁵ In contrast, developed countries, such as Japan, which had passed the corresponding stage in their industrialization process and whose high-technology industry is characterized by low energy use, experienced a dramatic decline in energy intensity since 1973.⁶ Countries with a moderate energy resource endowment, such as the Philippines and Thailand, experienced

5. Ho Tak Kim, *Energy Demand Management Policies in Korea*, Energy Study Series, no. 1 (Manila: Asian Development Bank, December 1986).

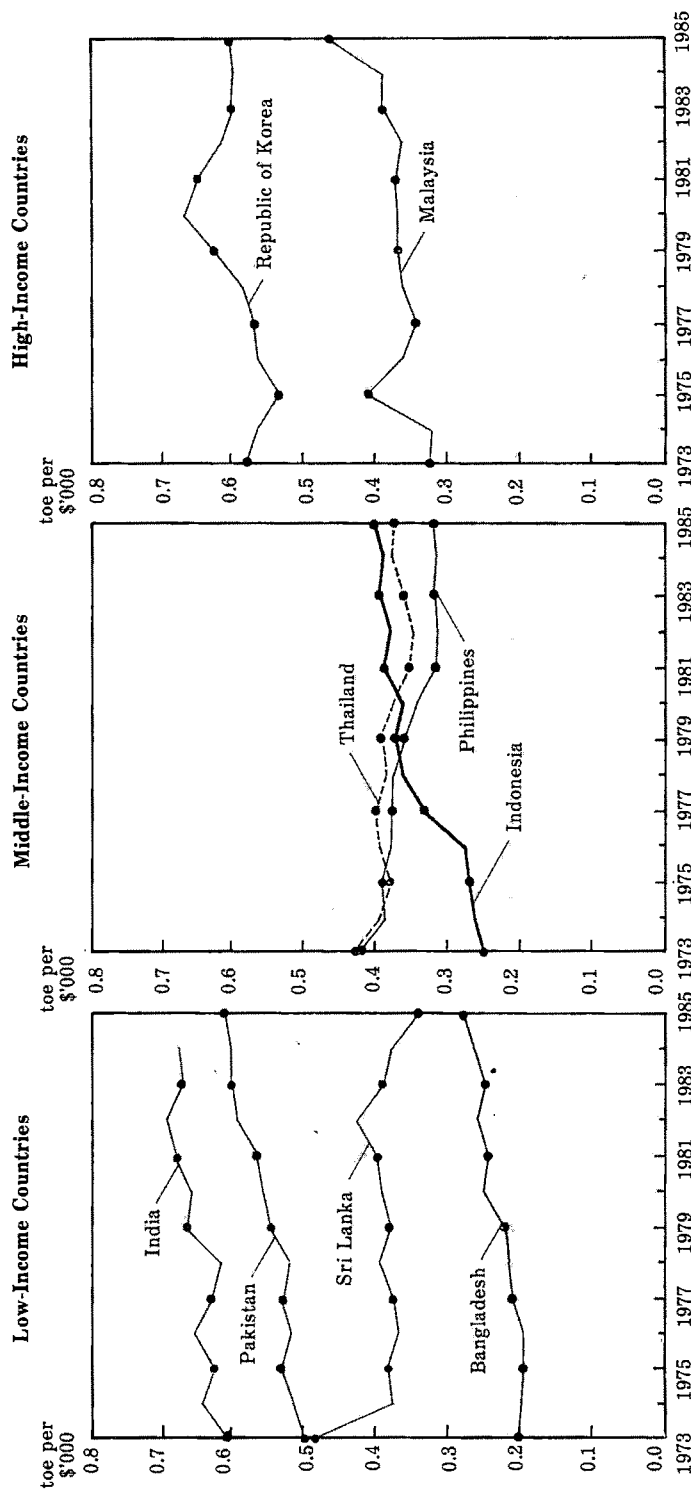
6. Institute of Energy Economics, *Energy in Japan* (Tokyo, 1986).

Table 4: Gross Domestic Product and Energy Consumption Per Capita in Selected Countries

	Gross Domestic Product Per Capita						Energy Consumption Per Capita					
	(1980 constant \$)			Annual Average Growth Rate (%)			(kilograms of oil equivalent)			Annual Average Growth Rate (%)		
	1973	1979	1985	1974-1979	1980-1985	1974-1985	1973	1979	1985	1974-1979	1980-1985	1974-1985
Bangladesh	116	147	156	4.0	0.9	2.4	24	33	44	5.5	4.9	5.2
China, People's Republic of	185	236	375	4.2	8.0	6.1	304	422	505	5.6	3.0	4.3
India	216	230	268	1.1	2.6	1.8	122	154	187	4.0	3.3	3.6
Indonesia	348	456	542	4.6	2.9	3.8	87	170	217	11.8	4.2	7.9
Korea, Republic of	1,099	1,710	2,187	7.7	4.2	5.9	639	1,078	1,333	9.1	3.6	6.3
Malaysia	1,277	1,663	1,928	4.5	2.5	3.5	411	610	889	6.8	6.5	6.6
Pakistan	245	275	338	1.9	3.5	2.7	122	152	206	3.7	5.2	4.5
Philippines	579	713	629	3.6	-2.1	1.4	244	261	199	1.1	-4.4	-1.7
Sri Lanka	216	270	335	3.8	3.8	3.7	104	102	114	-0.3	1.9	0.8
Thailand	523	696	843	4.9	3.3	4.1	220	271	314	3.5	2.5	3.0

Sources: Asian Development Bank, *Key Indicators of Developing Member Countries of ADB* (Manila, July 1986); and Asian Development Bank, *Energy Indicators of Major Developing Member Countries of ADB* (Manila, forthcoming).

Figure 3: Energy Intensity in Gross Domestic Product
(toe per \$'000 of real GDP at 1980 constant market prices)



toe = tons of oil equivalent.

Source: Asian Development Bank, *Energy Indicators of Major Developing Member Countries of ADB* (Manila, forthcoming).

a continuous decline in their energy intensities since 1973. On the other hand, most South Asian countries and the energy-exporting countries showed increases in their energy intensities.

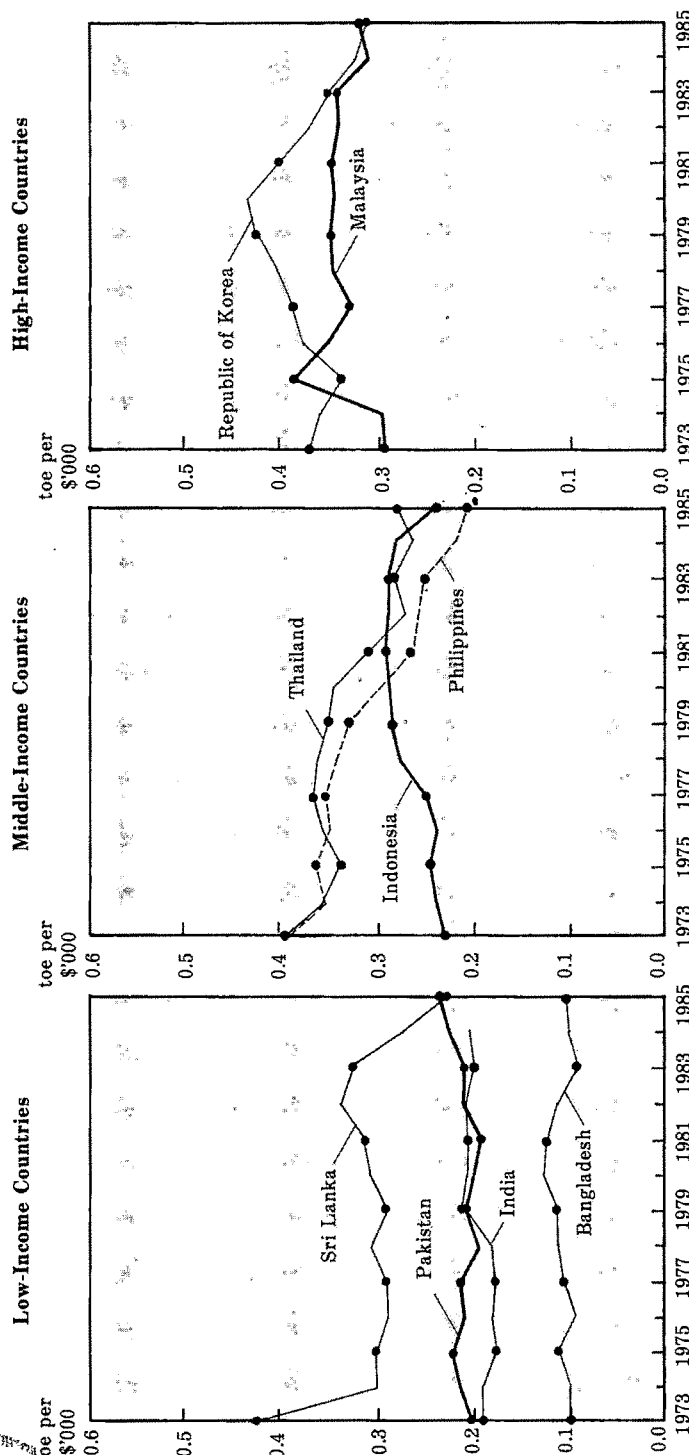
An important element in the linkage between the energy sector and the overall economy has been the effect of the price of energy on domestic inflation. The trends in the prices of various forms of energy have been perceptibly different from changes in overall inflation. Energy pricing policies and practices varied among the Asian developing countries, depending mainly on their resource endowments and their policies in counteracting inflation and balance of payments difficulties arising from the increases in oil prices. Since 1973, the aggregate consumer price of energy increased two to fourfold in Indonesia, Pakistan and Thailand, about fivefold in the Republic of Korea and about ninefold in the Philippines.

Structural Changes in Energy Supply. In response to the high cost of energy during the last decade, most of the Asian developing countries embarked on programs to adjust and diversify their energy supply and utilization patterns. As a result of these adjustments, there were structural changes in the energy sector leading, in most countries, to a greatly reduced dependence on oil. This was reflected in many countries in lower oil intensities in GDP (see Figure 4). However, in most South Asian countries and in Indonesia, their oil intensities did not decrease significantly, suggesting that they did not actively pursue energy adjustment programs.

The oil substitution programs of most countries related to coal and gas utilization. Development of nuclear, hydropower and geothermal resources was also pursued by a few countries. In oil-importing countries, the share of coal in energy supply increased significantly. For example, between 1973 and 1985, it increased from 35 to 40 per cent in the Republic of Korea, from 0.2 to 11 per cent in the Philippines and from 2 to 10 per cent in Thailand. The share of gas utilization increased from virtually nil in 1973 in Indonesia, Malaysia and Thailand to 24 per cent, 20 per cent and 20 per cent, respectively, in 1985. In Bangladesh, it increased from 35 per cent to 57 per cent in the same period. In the Republic of Korea, nuclear energy is a new source of commercial energy, accounting for 8 per cent of primary energy. In Indonesia, Malaysia, Pakistan and the Philippines, major efforts have been made for the development of geothermal and hydropower sources of energy. However, there have not been significant changes in the composition of energy supply in the People's Republic of China and India, the two largest countries in the region. During 1973-1984, the share of oil in energy supply remained virtually unchanged at 18 per cent in the People's Republic of China and 30 per cent in India.

Structural Changes in Consumption. The sectoral pattern of energy use is largely determined by the socioeconomic structure, particularly the extent of industrialization and urbanization. The industrial and transport sectors

Figure 4: Oil Intensity in Gross Domestic Product
(toe per \$'000 of real GDP at 1980 constant market prices)



toe = tons of oil equivalent.

Source: Asian Development Bank, *Energy Indicators of Major Developing Member Countries of ADB* (Manila, forthcoming).

Table 5: Commercial and Non-Commercial Energy in Total Primary Energy

	Year	Commercial		Non-Commercial	
		('000 toe)	(%)	('000 toe)	(%)
Bangladesh	1983	3,566	36.8	6,123	63.2
China, People's Republic of	1980	421,925	73.3	153,370 ^a	26.7
India	1982	123,154	53.6	106,592	46.4
Indonesia	1983	32,982	54.3	27,810	45.7
Korea, Republic of	1985	54,723	95.8	2,427	4.2
Malaysia	1982	9,533	77.0	2,850	23.0
Nepal	1983	238	6.0	3,710	94.0
Pakistan	1985	18,047	65.3	9,600 ^b	34.7
Philippines	1985	10,903	80.3	2,671	19.7
Sri Lanka	1985	1,825	30.3	4,204	69.7
Thailand	1984	16,086	58.1	11,602	41.9

toe = tons of oil equivalent.

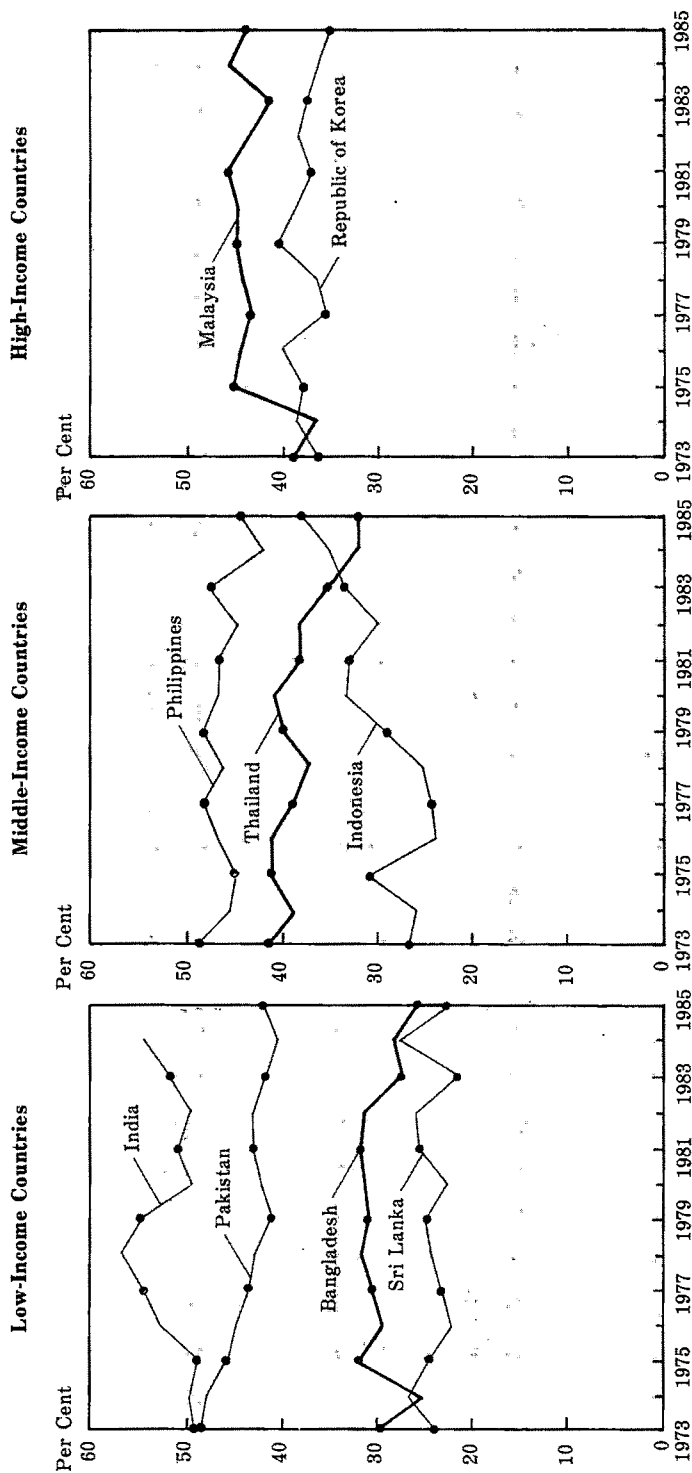
a Biomass fuel.

b Non-conventional energy only, excludes fuelwood.

Sources: Bangladesh Bureau of Statistics, *1984 Statistical Yearbook of Bangladesh* (Dhaka, 1985); World Bank, *China: The Energy Sector, Annex 3 to China: Long-Term Development Issues and Options* (Washington, D.C., September 1985); Ministry of Energy and Resources and Korea Energy Economics Institute, *Yearbook of Energy Statistics, 1986* (Seoul: Korea Energy Economics Institute, September 1986); Economic Planning Unit, Government of Malaysia, *National Energy Planning Study* (Kuala Lumpur, August 1985); Ministry of Petroleum and Natural Resources, *Energy Year Book 1985* (Islamabad, 1985); Ministry of Energy, "Annual Report 1985" (Manila, 1986, mimeographed); and National Energy Administration, *Thailand Energy Situation 1985* (Bangkok, 1986).

account for major shares of commercial energy consumption in most Asian developing countries. In the context of the increasing share of the industrial sector in GDP, the share of the industrial sector in energy consumption has not increased significantly in most countries (see Figure 5). This has been mainly due to improvements in energy productivity, i.e., the amount of GDP produced per unit of energy used. For example, in the Republic of Korea and Thailand, the industrial sector's share in energy consumption showed a moderate increase or even a declining trend because of improvements in energy productivity in the industrial

Figure 5: Share of Industrial Sector in Consumption of Energy
(Percentages)



Source: Asian Development Bank, *Energy Indicators of Major Developing Member Countries of ADB* (Manila, forthcoming).

sector. However, in some countries, for example, India and Indonesia, which expanded their relatively small manufacturing sector, a rapid increase in energy consumption was accompanied by more energy-intensive industrial activities.

In most countries, urbanization also contributed to the growth of consumption of commercial energy. A relatively moderate rate of urban growth in Malaysia, Pakistan, Philippines and Thailand led to increasing shares of residential and commercial sectors in energy consumption. In Pakistan, particularly, total energy consumption was highly correlated with urbanization.⁷ In the Republic of Korea, on the other hand, rapid urbanization occurred without increasing demands on overall energy consumption mainly because of effective conservation measures and pricing policies and efficient energy supply systems.

In most countries, the transport sector accounted for high shares in overall energy consumption. In 1985, it accounted for 30 per cent or more in Indonesia, Malaysia and the Philippines and more than 50 per cent in Sri Lanka and Thailand (see Figure 6). This was partly due to a lack of efficient alternative transport systems and partly due to difficulties in implementing effective energy conservation and fuel substitution programs in the transport sector. However, in the Republic of Korea, which has relatively larger industrial and urban sectors, the share of the transport sector increased slightly but remained at less than 20 per cent of total energy consumption.

In addition to changes in the structure of consumption emanating from the industrial, urban and transport sectors, a significant trend relates to the increasing rate of growth of electricity in total energy. In the low-income countries, where electricity is perceived as a basic need, rural electrification programs have been accelerated. Also, there has been a shift to a greater use of electricity in the higher income countries, where it is recognized as a cleaner and efficient energy. In general, in most Asian developing countries, the share of electricity in total energy consumption has been steadily increasing. This share is relatively lower in oil-exporting countries such as Indonesia and slightly higher in oil-importing countries such as Thailand.⁸

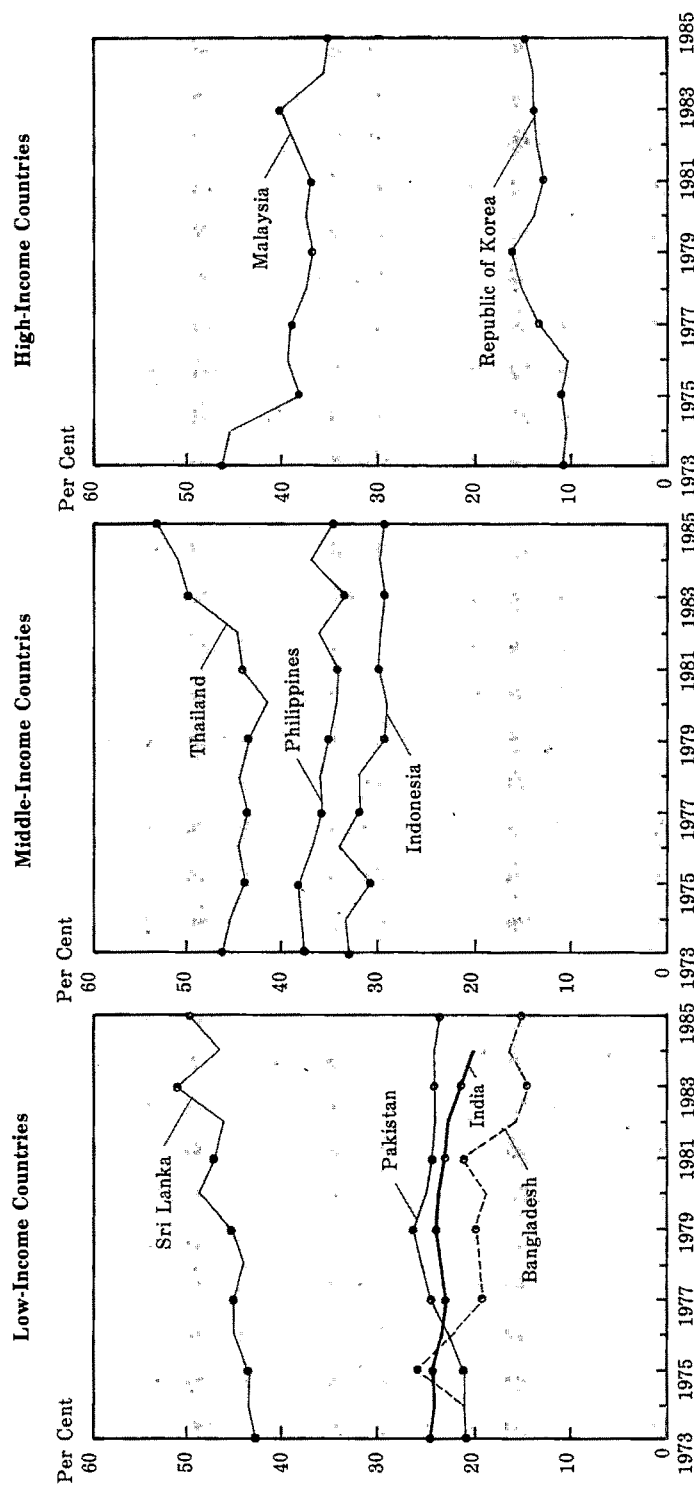
Self-Reliance in Energy. Self-reliance in energy has become a major policy concern for most oil-importing Asian developing countries. Some of the Asian energy-exporting countries are also concerned about their energy balance because they have experienced a reduction in energy exports arising from increasing domestic demand. In the region as a whole, the requirements for imports of energy has not declined significantly because the substitution of fuel basically has involved a shift from imported oil to imported coal and nuclear energy.

Countries which have poor energy resources, such as the Republic of Korea, have faced an increasing dependence on imported energy (see Figure 7). These

7. Seung Yoon Rhee, *Energy Demand Management Policies in Pakistan*, Energy Study Series, no. 8 (Manila: Asian Development Bank, December 1986).

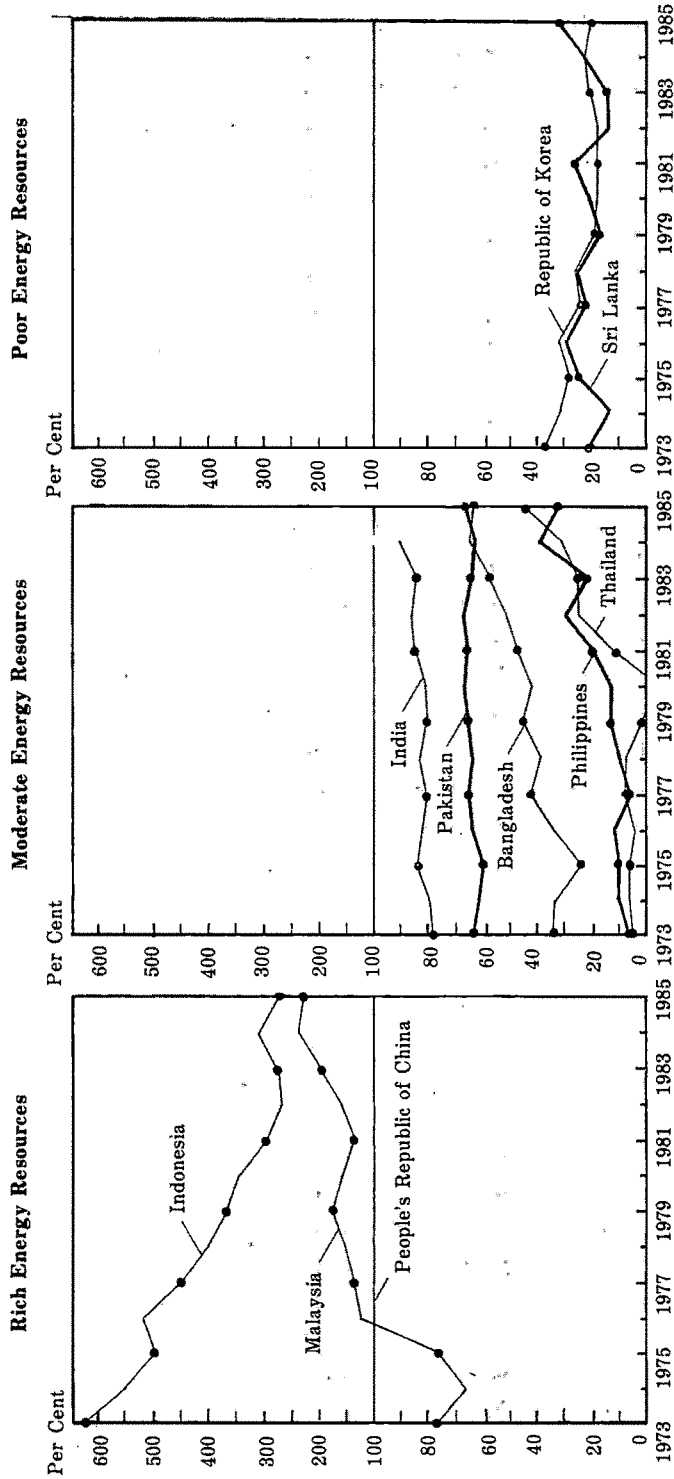
8. Asian Development Bank, *Asian Electric Power Utilities Data Book 1985* (Manila, 1986).

Figure 6: Share of Transport Sector in Consumption of Energy
(Percentages)



Source: Asian Development Bank, *Energy Indicators of Major Developing Member Countries of ADB* (Manila, forthcoming).

Figure 7: Self-Reliance in Energy
(Percentage of Indigenous Production
to Primary Energy Consumption)



Source: Asian Development Bank, *Energy Indicators of Major Developing Member Countries of ADB* (Manila, forthcoming).

countries have had to adopt policies to improve efficiency in energy use and to diversify their energy sources. Some countries, such as the Philippines and Thailand, and most South Asian countries have experienced rapid declines in their dependence on imported energy with the development and increasing use of indigenous energy resources.

The energy-rich countries have also sought to diversify their energy resources to optimize their revenues from energy exports. Indonesia expanded its non-oil supply capability from oil to gas and coal resources, while Malaysia even imported coal to substitute for oil in domestic consumption, thereby augmenting its oil supply for export.

Outlook for the Energy Sector

As a result of developments since 1973 in the world energy environment, the Asian developing countries, particularly the oil-importing countries, faced considerable economic difficulties. Most of the countries incurred losses in their export earnings because of higher import bills arising from high oil prices and had to use scarce resources for energy development. Notwithstanding the difficulties, most countries made good progress in adjusting their energy supply to the oil shocks. However, despite impressive efforts in conservation and diversification, oil still plays, and will continue to play, a significant role in the overall energy supply of most Asian developing countries.

The outlook for the energy sector will, therefore, depend largely on the price of oil and on the interaction of international oil markets with future demand and supply of energy and with relevant investment policies. In addition, the role of the private sector and the significance of non-commercial energy will also influence the direction of energy development in the region.

The Price of Oil, Energy Development and Investment Policies. The oil prices that emerged after the second oil shock could not be sustained at their high levels. The Organization of Petroleum Exporting Countries (OPEC) was able to maintain the high prices for about five years, but at the expense of its share in the international market. By 1985, it was forced to reduce production by nearly 50 per cent and its market share declined to about 30 per cent from about 50 per cent in the late 1970s. The decision to maintain its market share, rather than prices, resulted in the collapse of oil prices.

In response to the recent decline in oil prices, the consumption of oil may be expected to increase having fallen since 1979. On the supply side, the oil shocks in the 1970s led to oil exploration and energy development on a large scale in many non-OPEC countries, resulting in increasing pressure on OPEC's strategy of maintaining high oil prices. However, with lower oil prices in recent years, exploration programs have been reduced in many countries as oil companies adjust to low prices. The future oil prices cannot be forecast with a reasonable

degree of accuracy. Most forecasters would agree, however, that with an increase in OPEC's share of the market to a level of about 40-50 per cent, given known reserves, oil prices are likely to rise at a faster rate.

As indicated earlier, coal is the dominant source of energy in the Asian developing region as a whole, primarily because of its major role in the energy sectors of the People's Republic of China and India. While this situation will remain unchanged, oil will continue to be the major source of energy for the other Asian developing countries and the most important item in the regional energy trade for the rest of the century. Although oil substitution has been pursued with some success in the electricity sector and in some industrial activities, the scope for its widespread impact is limited. Moreover, as noted earlier, the transport sector in most Asian developing countries consumes substantial amounts of oil. A recent study has forecasted that oil consumption in the transport sector in developing countries will increase rapidly in the next 15 years.⁹ It is, however, expected that natural gas will make increasing contributions to overall energy supply, while the share of hydropower and nuclear energy, except perhaps in the Republic of Korea, will remain modest. On the average, the growth of demand for electricity will be faster than that for energy. This, together with the increasing use of non-oil sources in power generation, will help to reduce the share of oil in total energy supply.

In many Asian developing countries, non-commercial energy, biomass in general and fuelwood in particular, will continue to be the major energy source in rural areas until incomes per capita increase sufficiently to allow consumption of commercial fuels. Considering that the forecasted oil price increases have not occurred, the earlier expectations about the potential of these renewable sources to help meet commercial energy needs may not be fully met. Since oil prices are expected to remain below the peak level in the early 1980s for some time, conventional fuels and technologies will, therefore, retain their competitiveness in the near future.

In the past, the focus of the energy policy of developing countries has been on adjustment to high energy costs. Policy objectives have emphasized security of energy supply, oil substitution, the development of indigenous energy resources and conservation. In the light of lessons learned from past experience in the economic costs of adjustment, all these objectives will remain valid. But some adjustments have to be made in response to the new situation in international oil markets.

After the increases in oil prices in the 1970s, the general concern was about security of oil supply. This, however, is no longer of immediate concern, but it must be recognized that a growing dependence on OPEC may not be prudent in the longer term. The efforts towards oil substitution and the development of indigenous energy resources must continue, thereby broadening the base of

9. George Kouris, *Transportation Oil Demand to 2000*, Special Report, no. 229 (London: Economist Intelligence Unit, December 1985).

supply. Also, efforts to moderate energy demand must continue through pricing policies and improvements in energy productivity. The experience so far suggests that in most Asian developing countries the prices of oil products in domestic markets have been adjusted by 30-50 per cent, rather than passing on the full benefits of the decline in the world market price of oil to consumers. This approach would allow prices to reflect long-term economic costs and also moderate the growth of demand for oil.

In the short term, declining commodity prices, including oil, and sluggish demand in industrial countries are likely to affect investments in exploration and oil substitution. While investments would continue in energy-deficit countries such as Bangladesh, People's Republic of China, India and Pakistan, they are likely to slow down in countries such as Burma, Malaysia, Philippines and Thailand. It is expected that investments in natural gas and coal are likely to continue in the countries which have these resources because of their competitiveness with oil. These trends in investment for the supply of energy reflect developments in demand. For example, there has been no large-scale reconversion to the use of oil after the installation of facilities for the utilization of non-oil energy sources. This indicates the economic viability of non-oil energy use in existing facilities and the limited flexibility in reconversion to oil. But it is likely that investments will be made in oil substitution projects only for the expansion of capacity or the replacement of equipment.

The experience in the Asian developing countries suggests that so long as there is a growing demand for the products of industries, input and output prices are regulated, or competition is limited, high priority will not be given to improvements in productivity, including conservation measures. However, experience in developed countries also indicates that in the absence of high growth, expanding markets and protection, industries have been forced to improve their productivity. This is now becoming a more realistic strategy for many developing countries.

Role of the Private Sector. Changes in the world energy environment have brought about other developments in the energy sector. Many Asian developing countries are considering privatization of public sector enterprises to reduce the role of government, to raise funds and to improve operations and productivity. However, despite the considerable interest, the record of privatization has been modest. In the coming years, the possibilities of privatization will offer challenging opportunities.

In many Asian developing countries, the private sector has been playing an increasing role in energy-related activities, particularly in oil and gas. In most countries, however, electric power supply and development are predominantly carried out by public utility entities. Although several countries have taken steps to allow the generation of electricity by the private sector to meet expected deficits, prospects for a wider and substantial participation of the private sector in the near future are not very promising. Nevertheless, there are possibilities

for private sector involvement in power generation, particularly for combined heat and power production (cogeneration) in industry. Many industrial plants produce heat for the needs in processing, but continue to purchase electricity from the national grid. The potential for cogeneration, including electricity supplies to the national grid, will increase with industrial growth in many countries.

Non-Commercial Energy. Non-commercial energy largely consists of fuelwood and agricultural and animal wastes. As indicated earlier, in the Asian developing countries, non-commercial energy forms a large part of total energy consumption. While in many countries the electricity network has been extended to cover a fairly large part of the rural areas, it mainly serves lighting purposes. Most of the energy for household needs, such as heating and cooking, is provided from fuelwood, kerosene and wastes. In many countries, there is a severe shortage of fuelwood with large-scale denudation of forests. The situation has been aggravated with increasing urbanization and industrialization and growth of the rural population.

The denudation of forests has also affected the ecological balance.¹⁰ In most of the Asian developing countries, the government has recognized the problem and steps have been taken to halt this trend. Several countries have undertaken programs of fuelwood plantations and social forestry, but it will take considerable effort and time to restore the ecological balance.

Many Asian developing countries have used new and renewable sources of energy in specific situations. The People's Republic of China and India have undertaken major biogas programs, and most countries have implemented mini-hydroelectric projects. Some attempts have been made to harness solar and wind power but with modest results.

New and renewable energy sources may be appropriate for high-value uses in isolated rural communities, where commercial energy is costly or difficult to obtain. These energy sources may be cost-effective for high-value power uses such as water pumps and lighting, but not for energy needs such as cooking, where it would compete with fuelwood or kerosene.¹¹

Conclusion

Despite the increases in international oil prices since 1973, the demand for energy in most Asian developing countries continued to increase. In most of the countries, the demand for commercial energy grew at a faster rate than the demand for total energy, indicating increasing dependence on sources of

10. For example, in Nepal, during the past 15 years, about 20,000 ha have been afforested, while in the same period more than 2 million ha of forests were destroyed. See Asian Development Bank, *Nepal Agriculture Sector Strategy Study*, vol. 1 (Manila, 1982), p. 12.

11. United Nations Development Programme, *Photovoltaic Information Symposium and Workshop*, Summary Report (Chiang Mai, Thailand, April 1986).

commercial energy. However, the demand for both commercial and total energy grew at a slower rate than GDP in many countries after the second oil shock in 1979, possibly reflecting the adequate efforts made in demand management and energy conservation. Structural changes of the economy also contributed to the increase in total energy consumption of the countries.

Changes in the price of oil had an important impact on the economies of the oil-importing countries in terms of their balance of trade, inflation and economic growth. The trade balances worsened in all the oil-importing countries between 1974 and 1979. However, the trade deficits were not entirely or directly due to the increase in imported oil, but much of the deficit was caused by other factors, including slow growth of exports. The inflationary effect of the oil price increases was evident in all the oil-importing Asian developing countries. In general, the oil price increases had an adverse impact on the economies of the oil-importing countries, and the severity of the impact depended on their links with the world economy.

The most effective steps taken in demand management in response to the oil price increases appear to have been the substitution of other fuels for imported oil, the passing on of the oil price increases to consumers, and the carrying out of comprehensive conservation programs in industry. Other measures included financial incentives for the installation of energy-saving equipment and the establishment of mandatory energy-efficiency standards for industrial, commercial, and household machinery and equipment.

Most of the countries adopted fuel-switching measures by developing indigenous energy resources, changing the composition of energy inputs, or developing new and renewable energy. Some countries, however, used energy pricing policy in demand management but most of the countries avoided this procedure because of inflationary, political stability, or social equity considerations.

The prospect of uncertain and fluctuating international oil prices presents the Asian developing countries with difficult policy choices. The passing on of reductions in international oil prices to consumers would give them a welcome relief and stimulate their economies, but it would also weaken incentives for energy conservation. Their vulnerability to fluctuations in international oil prices could be reduced by stabilizing domestic oil prices through the use of a stabilization fund, or by other actions, such as the stockpiling of oil, the building of multifuel firing capabilities in the industrial and electric power sectors, and developing indigenous resources such as natural gas. However, the cost, feasibility and flexibility of these measures must be carefully assessed. The options of energy conservation, supply and investment must also be considered. In general, it would be prudent to maintain, and possibly broaden, existing energy policy measures in demand and supply management efforts as insurance against expected increases in oil prices.

Rural Development in Asia: Issues and Perspectives

Satish C. Jha*

During the last two decades, developing countries in Asia made remarkable progress in increasing agricultural production and rural incomes. Since the 1950s, there have been perceptible improvements in the countryside with expanded transportation networks, better communication systems, more developed irrigation infrastructure and modern buildings. However, it would be rather presumptuous to conclude from these physical developments that all the countries have reached the take-off stage in their development process. The available literature suggests that although incomes per capita have increased in absolute terms, the poor have become poorer and the rich, richer.

In many countries, the growing attention given to rural development has been accompanied by substantial investments and institutional and policy reforms. While it may be premature to analyze and assess the effectiveness of rural development programs in alleviating poverty on a national scale, it should be possible to learn some useful lessons from specific projects and policies in determining future directions.

In general, investments in rural development have been based on the underlying assumption that they would promote economic growth in rural areas. The overall benefits would then "trickle down" to the poor, resulting in a more equitable distribution of incomes and, thus, alleviating poverty. The emphasis has been on programs which increase farm productivity. Undoubtedly, these programs accelerated development growth rates in most of the Asian developing countries. However, income distribution has not improved in many of these countries. And there is evidence that poverty, landlessness and unemployment have become more widespread.¹

Why has this occurred? Have the rural development programs aimed at alleviating poverty been unrealistic? Have the diverse characteristics among Asian developing countries led to variations in the performance of rural development programs? Where have the policies and strategies failed? This article

* Manager, Agriculture Department (East), Asian Development Bank. The author wishes to thank Bruce F. Johnston, Vernon W. Ruttan and Thomas P. Tomich for their valuable comments on an earlier version of this article.

1. Azizur Rahman Khan and Eddy Lee, eds., *Poverty in Rural Asia* (Bangkok: International Labour Organisation/Asian Employment Programme, 1984), pp. 17-18.

addresses these and related issues. It first outlines the "program" concept of rural development which forms the framework for discussion. It then assesses the experience of Asian developing countries in rural development and examines the relationship between the performance of rural programs and the overall economy. Finally, it offers possible directions for future strategies in rural development.

The Program Concept

The increasing amount of literature on rural development published in the past few years has helped to draw attention to the problems facing rural populations. But it has also caused some confusion. Experts have drawn on their own orientation and experiences of development issues and have adopted or created terminology to reflect their experiences. Some conceptual difficulties have also emerged from the increasing number of activities and components which have been incorporated in projects under the aegis of rural development programs.² The scope of rural development projects has been broadened to accommodate the diverse programs and projects launched by national governments and international aid agencies. The premise underlying these efforts is that, for a number of reasons, the overall economic growth process may not by itself have sufficiently strong multiplier effects to reduce unemployment and poverty in rural areas.³

Evaluation studies of rural development policies and programs in many Asian developing countries, based on conventional macroeconomic indicators, have identified a large segment of the rural population — estimated at 40 per cent — that has been bypassed by the mainstream of development. The studies have also observed, based on data related to the socioeconomic impact of the Green Revolution, that small-scale farmers have responded positively to the new technology and their production has compared favorably with that of large farm operators. However, greater efforts could have been made to help expand the production base of small farm producers and to meet their input requirements. It has been suggested that a shift of resources towards small-scale farm operators would not only encourage efficient production but also hasten social equity.⁴ The proposition for a shift of resources to small farmers has been supported by studies on intersectoral linkages in developing countries which stress the growth-stimulating effects of greater consumption expenditures by low-income rural households.

2. John M. Cohen, "Integrated Rural Development: Clearing Out the Underbrush", *Sociologia Ruralis*, vol. 20, no. 3 (1980), p. 196.

3. Raj Krishna, "Concepts in Policies of Rural Development", *Rural Development in Asia and the Pacific*, vol. 1, Papers and Proceedings of the ADB Regional Seminar on Rural Development (Manila: Asian Development Bank, April 1985), pp. 21-41.

4. The general contention has been that small-scale farmers received less resources vis-à-vis their efficiency and, hence, the net gain in production to the nation has been comparatively smaller.

In general, small and marginal farmers have received inadequate social facilities and services. Empirical evidence in several Asian developing countries indicates that investment in social infrastructure and services — such as health, nutrition, education, population and family planning, and water supply and sanitation — which directly improve living conditions could have a long-term impact on economic growth. Further, these services and facilities could ultimately contribute to the formation of human capital and, hence, increase labor productivity.

In the light of these concerns, planners and policymakers in Asian developing countries adopted the “program” concept of rural development as a broad-based approach for alleviating rural poverty. This concept is a multicomponent framework which emphasizes agricultural and non-farm production and social infrastructure development. It is based on four premises: (i) that rural development programs must be designed to meet the specific needs of the poor in a specific location; (ii) that the success of a program depends on the participation of large numbers of the poor in more productive economic activities that benefit them directly; (iii) that socioeconomic progress in rural communities cannot be achieved without substantial institutional changes; and (iv) that the management of natural resources on a sustainable basis is best undertaken within the operational framework of rural development.

Designing Relevant Projects

Within the framework of the program concept, the Asian developing countries have undertaken various projects, financed domestically or with external assistance, to alleviate rural poverty. In general, the performance of these projects has not met expectations. In designing rural development projects, two issues must be addressed. First, will the available inputs lead to the desired outputs? Second, can the project be phased over time and are the implementation arrangements realistic?

Experience in a number of countries suggests that these issues have not been recognized in project designs. For example, many project designs assumed that production prerequisites and inputs, such as extension services, research, credit, input supplies and training, would be available from existing institutions and government agencies. Often, however, these were not provided or were inadequate, resulting in unsatisfactory performance of projects. Also, in designing projects, assumptions have been made on production systems to optimize resources used and maximize benefits. The selected production systems included research-based improved technologies and cultural practices. However, these were not adequately tested for responsiveness and acceptability by producers. In general, the endowment of local resources, the appropriateness of technologies and alternative opportunities were not sufficiently examined.

Many projects have failed because of a lack of understanding of local circumstances, institutional structures and sociocultural patterns. To sustain a

project in the longer term, the technological package, organizational arrangements and service delivery systems should be acceptable to the beneficiaries; the economic and financial returns should be sufficiently attractive to encourage initiative; the project objectives should be consistent with macroeconomic policies and plans; and the relevant institutions must have the requisite financial and human resources. A major deficiency in project design has been inadequate attention to the needs of the population. Most development projects have been initiated and planned at provincial, regional or district levels by government agencies within the framework of national policy guidelines and directives.⁵ The contribution of local communities has been generally minimal.

In designing rural development projects, the level of integration has been in terms of multicomponent linkages. Projects with a heavy integration of infrastructure development, social services and facilities, and production entities and activities were aimed at making a multidimensional attack on rural poverty. The level of integration has also been guided by considerations of local resource endowments, the institutional set-up, and the characteristics and aspirations of the people in the area. The scope of rural development projects has been complex, involving relatively large amounts of investment. While the available information suggests that, in general, heavily integrated multisectoral projects are more difficult to implement and coordinate than simple sectoral projects, there is no evidence to indicate that the success or failure of projects is due to integration. Some projects, comparatively much simpler in nature and scope, have experienced implementation delays and cost overruns and, ultimately, the objectives have not been fully achieved. In contrast, some heavily integrated projects, albeit small-scale, have proved to be quite successful.

In most Asian developing countries, projects are based on feasibility studies which focus on meeting the production and income requirements of rural communities, but there is a lack of information on the relevant characteristics of the rural population such as cultural and behavioral patterns, asset ownership systems, agricultural husbandry practices, and institutional and organizational capacities. An identification and understanding of these features is essential in determining feasible technological packages, systems of support facilities and services, and appropriate organizational and institutional arrangements.⁶

One reason for the failure of rural development projects is the use of the "blueprint" approach, whereby project components are spelled out, funds are allocated for specific components and tight schedules are set for implementation. As a result of this approach, projects are delayed, changes in project scope are invariably made during implementation, funds need to be reallocated because of cost overruns and project implementation periods revised.

It has been suggested that the success of a rural development project lies in implementing the components in a phased manner and carrying out relevant

5. Guy Hunter, A.H. Bungting and Anthony Bottrall, eds., *Policy and Practice in Rural Development* (New York: Allanheld, Osman and Co. Publishers, Inc., 1976), pp. 46-56.

6. Theodore W. Schultz, *Transforming Traditional Agriculture* (New Haven: Yale University Press, 1965).

activities in a proper sequence rather than as a single undertaking. Experience in some countries indicates that agricultural projects have been successful and both growth and equity objectives have been achieved under an appropriate sequential arrangement for environmental, technological and institutional development, including effective land reform measures.⁷ In several Asian developing countries, rural infrastructure facilities were developed relatively faster than production-related activities. This suggests that priority should be given to infrastructure development to provide opportunities for production activities. Sequential arrangements can best be done at the project design stage and would depend upon identification of linkages among project components. The establishment of priorities would depend upon the constraints on development and on the scale of extending a progressive rural structure throughout the country.⁸

Even if a rural development project was well designed with aspects of integration, phasing and sequential arrangements examined and accounted for, its success would largely depend on the competence of the executing agency, coordination and implementation arrangements. While there is insufficient evidence to suggest a direct relationship between project performance and the rate of national economic growth,⁹ experience indicates that there is a relationship between project performance and the competence of executing agencies. Executing agencies that have built up their institutional base and manpower over the years implement their projects with minimum delays.

Deficiencies in project management and implementation arrangements arise from the national rural institutional framework, which is often based on strong social, cultural and political traditions. Institutional development takes time despite a policy commitment and necessary decision-making.¹⁰ Nevertheless, for political reasons and considerations of economic expediency projects are designed and expected to be executed speedily, even though local management and administration responsible for project planning and implementation are inexperienced and lack technical skills and capability. Thus, in practice, projects suffer from conflicting expectations. On the one hand, they are expected to be tests of innovation while, on the other, they are expected to show immediate visible and quantifiable results.

Even when rural development projects are well designed and implementation arrangements are realistic, there are limitations and constraints on their ability to reduce rural poverty and income disparities, arising from basic deficiencies in macroeconomic policies and national strategies. Therefore, the

7. S.C. Hsieh and Vernon W. Ruttan, "Environment, Technological and Institutional Factors in the Growth of Rice Production: Philippines, Thailand and Taiwan", *Food Research Institute Studies*, vol. 7, no. 3 (1967), pp. 308-341.

8. A.T. Mosher, *Creating a Progressive Rural Structure* (New York: Agricultural Development Council, 1969), pp. 54-59.

9. See, for example, S.C. Jha, "ADB Experience with Rural Development Projects — A Critical Review", *Rural Development in Asia and the Pacific*, vol. 1, Papers and Proceedings of the ADB Regional Seminar on Rural Development (Manila: Asian Development Bank, April 1985), pp. 65-76.

10. Uma Lele, *The Design of Rural Development: Lessons from Africa* (Baltimore: Johns Hopkins University Press, 1975).

performance of projects must be assessed within the framework of national economic policies and strategies.

Asian Experience and Perspectives

The strategies and experiences of Asian developing countries in rural development vary considerably. India has adopted a very comprehensive strategy which includes, among others, a national rural employment program, a rural landless employment guarantee program, an integrated rural development program and different types of technology-oriented agricultural schemes. The aim is to alleviate poverty through infrastructure development and the promotion of cottage and small-scale industries and other viable economic activities. The poorest among the poor are given priority in all the poverty eradication programs. However, achievements have been modest. It has been estimated that the percentage of the population below the poverty line in 1979-1980 was about 51 per cent, or 339 million in absolute terms compared with 202 million in 1960-1961.¹¹

Some critics of the rural development program in India consider that the strategy of alleviating rural poverty through the transfer of assets by means of purchases with agricultural credit is largely misconceived.¹² This may well be so, considering the large numbers of the rural poor and existing institutional deficiencies. Notwithstanding the reasons for the slow progress in eradicating rural poverty, structural changes in production systems will have to be made together with the provision of income-generating assets. There is also a need for linkages and complementarities between the programs launched by different government departments and agencies. But as the Seventh Plan indicates, "in the ultimate analysis, the objective of removal of poverty can be fulfilled in the measure in which the poor themselves become conscious, improve their education and become organized and assert themselves".¹³

In Pakistan, the thrust of development in the rural sector has been through a comprehensive program of social and economic infrastructure development supported by institutional reforms. The Green Revolution with a wide network of irrigation systems played a major role in expanding production and making the country an exporter of foodgrains. However, large numbers of the rural population live below the poverty line. The agriculture sector cannot absorb the incremental labor force, and employment opportunities in non-agricultural activities are also limited. Therefore, it would appear that at this stage there is virtually no alternative to a continuation of the modernization of small-scale farms using labor-intensive and capital-saving technologies.

11. D. Bandyopadhyaya, *A Study on Poverty Alleviation in India through Special Employment Creation Programs* (New Delhi: ILO/Asian Regional Team for Employment Promotion, September 1986), p. 4.

12. N. Rath, "Garibi Hatao, Can IRDP Do It", *Economic and Political Weekly* (9 February 1985), pp. 238-246.

13. Government of India, Planning Commission, *The Approach to Seventh Five-Year Plan, 1985-90* (New Delhi, 1985), p. 5.

Indonesia has adopted a sectoral approach and a more focused rural development strategy in its poverty eradication effort. The former covers the entire country and consists of programs for food production, smallholder plantations (in conjunction with estates), small-scale livestock and fishery development, and other productive activities. The latter strategy consists of transmigration programs to resettle people in specific areas away from heavily populated Java. Undoubtedly, Indonesia has made remarkable progress in achieving near self-sufficiency in rice and in establishing infrastructure facilities to promote economic growth. But because of its large population and a lack in skills and entrepreneurship, it will require time and greater effort to eradicate rural poverty. Studies are being done to determine suitable strategies for expanding production in rural and non-rural sectors.

In Thailand, rural poverty eradication programs are a part of the national economic development effort. Poverty-stricken areas or regions have been identified, and the policy is to give priority to areas which have large numbers of the poorest, to provide adequate public resources for basic needs, to encourage self-help programs, and to develop local resource potentials. Apart from production gains in agriculture, which have been primarily due to the extension of cultivable land, there has been a high absorption of labor and a rising trend in real wages in activities such as harvesting, processing and marketing. This suggests that Thailand has made good progress towards achieving economic growth with equity. However, there are still large numbers of rural poor and further efforts must be made to accelerate the modernization of agriculture together with industrialization.

In the Philippines, the rural development program complements several ongoing sectoral programs. The program is largely geared to the provision of economically viable livelihood activities in natural resource development, agro-based industries, farm development and modernization in agriculture. It is noteworthy that even in the years when the Philippine economy achieved high rates of economic growth, there was no significant increase in rural employment and real wages remained low.¹⁴ This could be attributed to weak linkages between sectors of the economy and to lumpy investment in the agriculture sector. The Philippines has remained dependent on imports despite its natural resource potential, technical and managerial skills, and opportunities for development of local products, which would help to absorb the rapidly increasing labor force.

In Burma, Nepal and Sri Lanka, the focus of the poverty eradication effort has been on accelerating agricultural production. In Nepal, the performance of agriculture has been below expectations largely due to administrative and institutional weaknesses. There is growing malnutrition and poverty, particularly in the hill regions. In Burma and Sri Lanka, agricultural production has been commendable and has contributed substantially to the growth of the overall

14. M. Mangahas, "Rural Employment Creation Programs in the Philippines and Thailand", *Proceedings of Regional Studies-cum-Workshop on Rural Employment Creation* (Manila: Asian Development Bank, forthcoming).

economy. Indications are that some progress has been made in alleviating rural poverty in these countries.

The perspectives of rural development in the Asian developing countries are reflected in some macroeconomic indicators over a period (see Table 1). These suggest that the East and Southeast Asian countries generally fared better than the South Asian countries. Also, recent studies suggest that there is a relationship between the performance of rural development programs and the overall resource endowment, economic structure and national policies. These studies relate to Bangladesh, Malaysia and the Republic of Korea, which are also generally representative of the low-income countries in South Asia, the middle-income

Table 1: **Macroeconomic Indicators of Selected Countries**

	GNP Per Capita		Share of Agriculture in GDP (%)		Average Index of Food Production Per Capita (1974-1976=100)	Daily Calorie Supply Per Capita (Percentage of Requirement)
	Level in 1984 (\$)	Average Annual Growth Rate 1965-1984 (%)	1965	1984	1982-1984	1983
South Asia						
Bangladesh	130	0.6	53	48	99	81
Burma	180	2.3	35	48 ^a	124	117
India	260	1.6	47	35	110	96
Sri Lanka	360	2.9	28	28	125	106
Pakistan	380	2.5	40	24	104	95
Southeast Asia						
Indonesia	540	4.9	59	26	120	110
Malaysia	1,980	4.5	30	21 ^a	112	111
Philippines	660	2.6	26	25	107	104
Thailand	860	4.2	35	20	115	105
East Asia						
Korea, Rep. of	2,110	6.6	38	14	109	118

a 1983.

Source: World Bank, *World Development Report 1986* (New York: Oxford University Press, 1986).

Table 2: Selected Economic Indicators of Bangladesh, Malaysia and the Republic of Korea

Indicator	Year	Bangladesh	Malaysia	Republic of Korea
Population growth rate (%)	1973-1984	2.5	2.4	1.5
Population density (per sq mile)	1983	1,700	100	973
Life expectancy at birth, male (years)	1984	50	66	65
Daily calorie supply per capita	1983	1,864	2,477	2,765
Daily proteins per capita (g)	1981	40	58	89
Energy consumption per capita (kg of oil equivalent)	1984	40	716	1,171
Literacy rate (%)	1980	26	60	90
GNP per capita (\$)	1984	130	1,980	2,110
Growth rate of real GDP (%)	1973-1984	5.0	7.3	7.2
Growth rate of GNP per capita (%)	1965-1984	0.6	4.5	6.6
Share of agriculture in GDP (%)	1984	48	21 ^a	14
Work force in agriculture (%)	1984	74	36	27
Yield of paddy (kg/ha)	1983	2,047	2,867	6,203
Index of food production per capita (1974-1976 = 100)	1983	100	112	116

a 1983.

Sources: World Bank, *World Development Report 1986* (New York: Oxford University Press, 1986); and Asian Development Bank, *Rural Development in Asia and the Pacific*, vol. 1, Papers and Proceedings of the ADB Regional Seminar on Rural Development (Manila, April 1985), p. 78.

countries in Southeast Asia and the higher income countries in East Asia (see Table 2 for indicators suggesting relationships between rural development and the overall economy).¹⁵

The study for Bangladesh indicated that despite the implementation of a comprehensive rural development program over the years, the number of landless has been increasing and rural poverty is growing. This trend is partly due to the poor performance of the overall economy, which suggests that without national economic growth the rural economy will remain stagnant. Although

15. Theodore Thomas, Catherine Lovell, R.T. Shand and Sung Hwan Ban, "A Comparison of Rural Development Experiences in Bangladesh, Malaysia and the Republic of Korea", *Rural Development in Asia and the Pacific*, vol. 1, Papers and Proceedings of the ADB Regional Seminar on Rural Development (Manila: Asian Development Bank, April 1985), pp. 77-111.

agricultural production has gradually expanded, the pattern of production has not altered significantly to induce change in the structure of the overall economy. The country continues to have a massive trade deficit and a heavy dependence on external aid. Its limited natural resources, vulnerability to natural calamities and growing population are constraints on large investments for development. Over the past decade, several multicomponent rural development projects have been launched but their impact has been minimal because of deficiencies in design and the large numbers of rural poor relative to the coverage of the projects. Moreover, a durable rural institutional framework has yet to be established for the effective operation of rural development programs.

The main deficiency of the rural development strategy adopted in Bangladesh lies in its "integrated approach" and its being confined to specific locations. Considering that agriculture, with a predominance of small farm holdings, is the backbone of the economy, the strategy should have been to accelerate modernization in agriculture, ensuring that small farmers benefited. The spread of technology should have been accompanied by appropriate policies for providing irrigation water, by subsidies on inputs and credit, and by research and extension services for smallholders. Instead, these facilities and services benefited large farm holders, many of whom evicted tenants or purchased additional lands from neighboring poor farmers.¹⁶ This factor has largely contributed to the increasing numbers of landless in the country. Moreover, farmers with tiny holdings in rainfed agriculture and with little access to production inputs and technology had no alternative to selling their land. This trend could well have been halted by a faster innovation of technology for small farmers accompanied by appropriate national policies.

In Malaysia, the progress in rural development has been impressive and is attributed to structural changes in the economy and higher rates of economic growth. There has been a substantial "push" and "pull" effect on the rural economy.¹⁷ The progress in Malaysia has been due to its rich resources and the adoption of an appropriate strategy for the exploitation of its land resources and for the provision of adequate economic opportunities to smallholders. The strategy primarily consisted of widely dispersed land development and programs covering relatively large populations.

In the past two decades, exports have played a major role in growth, and until recent years, agriculture and forest products dominated the export trade. Also, the agriculture sector provided a considerable stimulus to growth in other sectors of the economy. However, despite significant growth in agriculture and in the overall economy, the country has a skewed distribution of income. The lowest income groups include smallholders in rubber, coconut and paddy cultiva-

16. S. Vlyder and D. Asplund, *Contradictions and Distortions in a Rural Economy: The Case Study of Bangladesh* (Stockholm: Swedish International Development Authority, 1979).

17. "Push" refers to the relative abundance of requisite resources which during the take-off stage move out of the rural sector. "Pull" refers to the ability of the non-agriculture sector in providing basic prerequisites for the rural sector.

tion, and the present objective of rural development is to raise the income levels of these groups. The focus is on raising their income levels through: (i) resettlement of marginal farmers on newly developed land together with the provision of infrastructure facilities and socioeconomic services; and (ii) integrated agricultural development involving consolidation of farms and supported by research, extension and marketing services.¹⁸

In the Republic of Korea, rural poverty has been attacked in a systematic manner. This involved extensive land reform, the provision of inputs and credit, the diffusion of effective agricultural technologies and subsidized price support for farm commodities. The policies were effective because of adequate and improved infrastructure, the organization of farms through cooperatives and motivations resulting from a high level of literacy and skills development.

The economy of the Republic of Korea has experienced a radical structural transformation since the 1960s. Despite a poor natural resource base, the economy achieved high growth rates and there has been a significant impact on the rural sector in recent years. At the time of the start of the first five-year plan in 1962, the economy was primarily agrarian. The strategy of the plan was to increase productivity and generate revenues in the agriculture sector which, in turn, contributed in two ways to overall economic growth. First, it provided high quality labor to the industrial sector at low wage rates; it is estimated that in 1957-1982, 12.3 million workers migrated from the agriculture sector. Second, taxes on farm land were an important source of government revenue, accounting for 24 per cent of total tax revenue and 57 per cent of total direct tax revenue in 1957. Also, a large part of rural savings was transferred to the non-agriculture sectors for the development of infrastructure facilities and social services.

The domestic savings together with borrowing from abroad enabled the financing of expansion and the establishment of import-substituting industries such as cement and textiles. A strengthened industrial base permitted a shift to export-oriented industries which, in turn, led to a push and pull effect on the rural sector. With rapid industrialization, the share of industry in gross domestic product increased from 8 per cent in 1953-1955 to 36 per cent in 1981-1983, and the share of agriculture fell from 51 per cent to 14 per cent. During the same period, farm output increased at an annual rate of 3.4 per cent, primarily due to expanded irrigation facilities, supply of chemical fertilizers, improved land preparation, and increased research and extension services. The use of these inputs and facilities was encouraged by subsidized inputs, support prices for farm commodities, and easy access to extension and research services, leading to the modernization of the rural sector. At present, the main objective of rural development is to raise income levels of farmers and rural entrepreneurs, which is about 75 per cent of urban household incomes, to comparable levels partly by shifting industries to rural areas.

18 Bruce F. Johnston and Thomas P. Tomich, "Agricultural Strategies and Agrarian Structure", *Asian Development Review*, vol. 3, no. 2 (1985), pp. 7-12.

Strategies and Policies: Objectives and Results

As indicated earlier, except for developing countries in East Asia, the developing countries in Southeast and South Asia have fared rather poorly in alleviating poverty in rural areas. The goals of rural development in the context of the national economy in these countries are clear. In the Southeast Asian countries, the main objective is to accelerate overall economic growth with the expectation that the benefits of growth would trickle down to the rural sector. In the South Asian countries, the major objectives are to raise the levels of productivity and incomes in rural areas, reduce income disparities and improve general living conditions. However, the strategies and policies adopted are generally deficient and often inconsistent with the objectives, the resources made available are insufficient and the institutional framework is inadequate to support the programs.

Undoubtedly, the most urgent requirement for alleviating rural poverty is to improve agricultural productivity and generate employment opportunities. Can these be complementary and mutually reinforcing? If so, the twin objectives of growth and equity could well be simultaneously achieved. But this would entail the adoption of appropriate production technologies and policies and the provision of inputs. Improvements in productivity imply that there could be savings in resources which may be allocated for other production activities, thereby generating employment and improving incomes in rural areas.

The experience of many Asian developing countries suggests that the innovations in technology and the policies adopted were not conducive to expansion of the production base and to widespread participation of the rural poor. Several countries adopted the Green Revolution prescription of a "crash package of modern practices program" to bring about faster increases in farm productivity. This included the provision of irrigation together with fertilizer, insecticides, high-yielding varieties of seed, extension services and credit. However, while these programs may have resulted in better use of land and increases in output, they did not necessarily absorb more labor or improve labor productivity.

In general, the Green Revolution bypassed a large proportion of small farm operators who had no access to public facilities and services. The small farmers could not compete with the larger farm operators who had easier access to the delivery system. Many small farmers were compelled to obtain non-institutional credit on onerous terms and were eventually forced to sell their lands to avoid additional debt. As a result, significant numbers of small farmers became marginal farmers and the number of landless workers increased. In contrast, large farmers had easier access to credit, enabling them to hire tractors and other mechanized services which helped to increase their farm productivity. This also lessened employment opportunities for farm labor.

In sum, the policies intended to alleviate rural poverty through increased productivity aggravated rural poverty. To offset the effects of declining land availability, the emphasis should have been on innovation and diffusion of

technologies that would have increased the demand for labor. The new technologies should have aimed at using rather than displacing the growing rural labor force.¹⁹ Admittedly, some countries in South and Southeast Asia may not be able to achieve the same level of success as countries in East Asia in improving productivity and absorbing labor by using new technology. The constraints lie in the structure of the overall economy, the relatively higher population growth rates and the weak linkages between agriculture and the other sectors. Studies indicate that in an economy that is primarily agricultural, the share of the labor force in agriculture will decline slowly even when growth in employment in the industrial and service sectors is very rapid. Also, the size of the agriculture sector relative to the rest of the economy limits the rate at which workers can be shifted to non-agricultural employment.²⁰

Government interventions in the market have adversely affected the rural economy. In most South and Southeast Asian developing countries, food prices have been maintained at artificially low levels to suit requirements of the urban population. Since prices have not reflected the social opportunity cost of resources, efficiency, output and employment have been adversely affected.²¹ These interventions have led to distortions in the distribution of income in favor of the urban populations. In contrast, the farm price policies adopted in the East Asian countries, such as the Republic of Korea, in their early stages of development, were the means for higher production incentives which, ultimately, contributed to the expansion of output and employment.

Considering that land is the main source of livelihood for the majority of the rural population in most Asian developing countries, it is imperative that efficient use is made of this resource. The pattern of ownership is a determining factor in land utilization. In general, the widespread system of tenant farmers in these countries has led to the inefficient use of land resulting in a weak production base and low farm productivity.²²

The Asian developing countries introduced a variety of measures to remove land tenure constraints and modernize agriculture. However, in most countries, the land reform measures did not achieve their objectives. A study by the Food and Agriculture Organization concluded that the failure of land reform could be attributed to four factors.²³ First, the land reform measures did not form an integral part of the socio-political and economic structure of the country. Second, the technology base and institutional system of the rural sector was not adequately prepared to absorb the measures. Third, the administrative system was too weak for the effective implementation of land reform. Fourth, it took considerable time to implement the reforms. Meanwhile, the politically and

19. Johnston and Tomich, *op. cit.*, pp. 10-13.

20. Folke Dovring, "The Sharing of Agriculture in a Growing Population", *FAO: Monthly Bulletin of Agricultural Economics and Statistics* (August-September 1959), pp. 1-11.

21. Bruce F. Johnston and William C. Clark, *Redesigning Rural Development: A Strategic Perspective* (Baltimore: Johns Hopkins University Press, 1982).

22. S.C. Jha, *A Critical Analysis of Indian Land Reform Studies* (Bombay: Indian Institute of Asian Studies, 1971).

23. Food and Agriculture Organization, *Land Reform*, no. 1 (Rome, 1975), pp. 2-13.

economically advantaged landlords were able to organize themselves and thwart the land reform effort.

As stated earlier, in most Asian developing countries, particularly in South Asia, the benefits from economic growth have bypassed the majority of the rural population.²⁴ Also, only a small percentage of the rural population benefited from agricultural modernization schemes and rural development programs. While in some countries this resulted from an unsystematic rural development effort, in others it was due to ambitious plans covering numerous activities in an unrealistic time frame. These plans were aimed at meeting short-term production and consumption requirements and also at providing the basic needs of the majority in the longer term. However, in the light of the limited resources available, it was necessary to set priorities and targets, but these were subject to frequent revisions and often to the disadvantage of the rural poor.²⁵ In most Asian developing countries, a major deficiency lies in the "top-to-bottom" process of planning. A lack of knowledge and understanding at the national planning level of conditions and needs at local levels often leads to inconsistencies within a plan and subsequent difficulties throughout the implementation of the plan.²⁶

Towards a Reorientation of Rural Development Strategies

In the light of experience gained, and in recognition of the socio-political consequences of growing numbers of rural poor, planners in Asian developing countries need to reconsider their rural development strategies and policies. In doing so, the rural poor must be identified and the investment resources required for a perceptible impact assessed and made available.

A major concern relates to the ability to implement rural development programs in a sustained manner. This would involve the formulation of short-term strategies within a longer term perspective, particularly in achieving improvements in the productivity of land and labor and in promoting human resource and institutional development. A future strategy must, therefore, entail linkages at the macroeconomic level between three elements. These are: (i) the launching of economic activities to improve productivity and generate employment and incomes together with the development of necessary infrastructure; (ii) the provision of social facilities and services, such as in education and health, in a long-term perspective; and (iii) the establishment of institutional infrastructure to permit the participation of local communities in the development effort and for the effective management and implementation of programs.

24. Inderjit Singh, "The Landless Poor in South Asia", in Allen Maunier and Kazushi Ohkawa, eds., *Growth and Equity in Agricultural Development* (Aldershot, Hampshire: Gower Publishing Company Limited, 1983), pp. 379-400.

25. For an interesting general review of deficiencies in developing countries, see Naomi Caiden and Aaron Wildavsky, *Planning and Budgeting in Poor Countries* (New York: John Wiley & Sons, 1974).

26. For interesting findings from field studies, see Robert Chambers, *Managing Rural Development: Ideas and Experience from East Africa* (Uppsala: Scandinavian Institute of African Studies, 1974), pp. 23-30.

To some extent, the formulation of suitable strategies for improving productivity, generating employment and increasing incomes has been hindered by indecision caused by the growth-with-equity controversy. Planners and policymakers have deliberated too long in determining whether a development plan should focus on productivity and growth, on income distribution and equity, or on both. Growth and equity are not inconsistent, nor is one a substitute for the other. Both growth and equity can be achieved, but neither growth nor equity can be achieved without proper interaction between technological and institutional innovations.²⁷ While in the longer term there is no trade-off between growth and equity, in the short term there would be disequilibrium in the allocation of resources if new technology is introduced without suitable institutional changes. For example, experience has indicated that in a situation of skewed land distribution and inequalities in wealth and power in rural societies, the Green Revolution in the 1960s benefited large landholders and widened inequalities.

It is well recognized, with the advent of the Green Revolution, that technological change plays a key role in agricultural development. However, despite its far-reaching implications for national economic growth and equity, technological change has so far been considered at a "micro" level. Attention should now be given to technological change at national planning and policy levels with support for its wider diffusion. Future research on technological change should emanate from considerations of the large numbers of small and subsistence farmers operating tiny holdings, the abundance of family labor, the paucity of cash funds and unfavorable factors, including agro-climatic, soils, topography and ecological conditions. There must also be technological innovations for rainfed agriculture on which a significant proportion of subsistence farmers depend for their livelihood. The future direction should, therefore, be towards labor-using and land-cum-capital saving technological innovations. The factor prices of labor-saving technology in terms of subsidized credit, input subsidies and product prices have hitherto been in favor of large farms. Unless these are corrected at the national level to the advantage of subsistence agriculture, growth in this sector will remain limited.

Experience and studies of rural development in Asian developing countries indicate that an inadequate institutional framework has been a major constraint on the effective implementation of rural development programs. The provision of economic and social infrastructure in rural areas and technological innovations in production have not been accompanied by an appropriate institutional framework. Institutional changes related primarily to immediate or short-term needs and solutions. In several countries, the measures included the establishment of new agencies, such as a land development authority, an agricultural development bank and an irrigation authority. These have been established in relation to specific projects and, therefore, serve limited purposes.

27. Yujiro Hayami, "Growth and Equity — Is There a Trade Off?", in Allen Maunders and Kazushi Ohkawa, eds., *Growth and Equity in Agricultural Development* (Aldershot, Hampshire: Gower Publishing Company Limited, 1983), pp. 109-116.

A broad-based institutional framework should be tailor-made to suit national rural development strategies and policies and should be durable for sustainable development. This suggests that each country should develop its own institutions to suit its rural development strategy and circumstances, based on research and study of its factor endowments and experience.

It is recognized that rural development should involve full participation of local communities. However, little progress has been made in mobilizing local interest, partly because of entrenched inequities in rural societies and partly because of a lack of understanding of traditional socioeconomic systems and social structures and practices. An effective institutional framework must, therefore, build on existing structures and patterns that are acceptable and better understood by local communities. This will require continuous field study which could best be undertaken as part of rural development programs. But, ultimately, the evolution and strengthening of rural institutions must start with the encouragement of local leadership and mobilization of the poor.²⁸

Studies have indicated that growth-inducing institutional structures evolve from technological innovations and their diffusion. For example, it was observed that in the Philippines, the introduction of high-yielding seed varieties together with the provision of irrigation and agricultural support services, including improved harvesting techniques, led to a significant change in tenurial arrangements during 1966-1976.²⁹ It was concluded that changes in tenure and the labor market occurred in response to changes in demand generated by changing factor endowments and new income streams. The economic gains to the innovators were sufficiently large to sustain the technological breakthrough together with a modified institutional framework. It was also observed that in the Philippines, a change in the system of rice harvesting brought about interactions between social and economic forces resulting in the choice of a specific harvesting technology and contractual arrangement between landowner and tenant. Similarly, in Indonesia, technology in harvesting influenced institutional arrangements and relationships resulting in increased labor absorption accompanied by a rise in the real wage rate.³⁰

The extent to which the interaction between technological change and institutional development will help alleviate rural poverty will depend on policies for expanding the production base and generating employment in non-agricultural activities. Even with technological innovation and massive investment, the agriculture sector will not be able to fully meet the employment needs of the growing rural population. In most Asian developing countries, the non-agriculture sectors have not been able to absorb the incremental labor force resulting in

28. Prabhu Ghatge, *Direct Attacks on Rural Poverty: Policy, Programmes and Implementation* (New Delhi: Concept Publishing Company, 1984), pp. 477-481.

29. Yujiro Hayami and Vernon W. Ruttan, *Agricultural Development: An International Perspective* (Baltimore: Johns Hopkins University Press, 1985), pp. 98-107.

30. Yujiro Hayami and Masao Kikuchi, *Asian Village Economy at the Crossroads: An Economic Approach to Institutional Change* (Tokyo: University of Tokyo Press, 1981), pp. 96-101 and 202-212.

increasing pressure on limited agricultural land.³¹ The strategy should, therefore, entail expansion of the production base to increase output and generate a marketable surplus to enable the establishment of rural industries that would absorb the incremental labor. However, in most Asian developing countries, there are limiting factors, such as illiteracy and poor health, to the absorption of rural labor in non-agriculture sectors. The formation of human capital is, therefore, a prerequisite requiring considerable investment in education, health, nutrition and family planning. The success of rural poverty eradication programs would, therefore, also depend on national policies for human resource development, for promoting more efficient labor markets and for removing distortions in factor prices.³²

In the light of their diverse resource endowments, socioeconomic characteristics and levels of economic development, no single strategy can be prescribed to promote rural development in the Asian developing countries. However, there are broad differences between the predominantly agricultural, low-income and slowly growing countries in South Asia and the resource-rich, middle-income and faster growing countries in Southeast Asia. These differences, and the general similarities among countries within each region, would determine the general approach to rural development.

In South Asia, poverty is more widespread and the countries have larger populations. Poverty alleviation programs can, therefore, have an impact only with effective population control. Rural development programs should primarily aim at halting the trend of rising numbers of poor below the poverty line. This could best be achieved with macroeconomic multisectoral plans which include integrated projects and programs to be implemented in a phased and sequential manner. Priority should be given to the establishment of socioeconomic infrastructure, the diffusion of technology among small farmers, the evolution of a relevant institutional framework, the promotion of non-agricultural activities, and human resources development. In Southeast Asia, the emphasis should be on intersectoral linkages, with the generation of marketable surplus in the agriculture sector to stimulate production and provide employment in non-agriculture sectors. In general, the basic strategy should aim at accelerating overall economic growth, the trickle-down effect of which would bring about rural development rather than the implementation of location-specific or function-related integrated development.

31. Dovring, *op. cit.*, pp. 4-8.

32. G. Edward Schuh, "Approaches to 'Basic Needs' and to 'Equity' that Distort Incentives in Agriculture", in Theodore W. Schultz, ed., *Distortions of Agricultural Incentives* (Bloomington: Indiana University Press, 1978), pp. 319-322.

Foreign Direct Investment and Economic Growth in the Asian and Pacific Region

Pradumna B. Rana*

In recent years, there has been a renewed interest in the flow of foreign direct investment to developing countries, both as a source of foreign capital and of improved technology and management systems. The developing (host) and industrial (source) countries, as well as international organizations, increasingly advocate a substantial expansion in the share of foreign direct investment in the overall flow of financial resources to developing countries that have deficits in their balance of payments. Two basic reasons have been suggested for this renewed interest.

First, it is postulated that foreign direct investment has several financial advantages over borrowing from commercial banks. Equity financing requires payments to be made only when the investment earns a profit, while debt requires payments irrespective of the prevailing economic situation. Moreover, payments under foreign direct investment can be regulated by the host country while debt payments are outside its control because of interest rates in international markets. In addition, only a portion of foreign direct investment is typically repatriated in contrast to the need to repay the full amount of principal on loans. Finally, foreign direct investment permits a closer match between the maturity structure of earnings from an investment and that of required payments to the capital used in financing, thus avoiding difficulties when developing countries undertake short-term borrowing to finance long-term investment.

Second, current projections about future official flows, especially official development assistance (ODA), and commercial bank borrowing are less promising than in previous years, and it has been suggested that foreign direct investment can be a useful alternative. ODA from the Development Assistance Committee (DAC) countries of the Organisation for Economic Co-operation and Development (OECD) is expected to increase by only 2 per cent per year in real terms during the next several years. Moreover, lending by commercial banks has been declining since 1982. Thus, there appears to be a reasonable scope for additional foreign direct investment flows to developing countries.

This article reviews the flow of foreign direct investment to the Asian and Pacific region since 1970 and examines the possibilities for increased flows in

* Economist, Economics Office, Asian Development Bank. The author wishes to thank Burnham O. Campbell, John Malcolm Dowling, Jr., Dean DeRosa and M.G. Quibria for helpful comments and suggestions.

the future. It first discusses the trends in foreign direct investment to the Asian and Pacific developing countries and then assesses the contribution of such financing to economic growth and the efficiency of investment in these countries. Finally, it outlines the policy measures in the host and source countries that could encourage and accelerate foreign direct investment.

Trends and Concentration

Intercountry comparisons of financial flows are hampered by limitations in statistics, including differences in coverage and data collection. Nevertheless, the two commonly used sources of data for such comparisons are the International Monetary Fund (IMF) and OECD. While the IMF presents series based on balance of payments statistics obtained from recipient countries, the OECD presents data reported by selected source countries, namely, members of DAC and the Organization of Petroleum Exporting Countries (OPEC). Because of the limited coverage and exclusion of short-term capital, the OECD data generally indicate smaller volumes of financial flows than the IMF data.

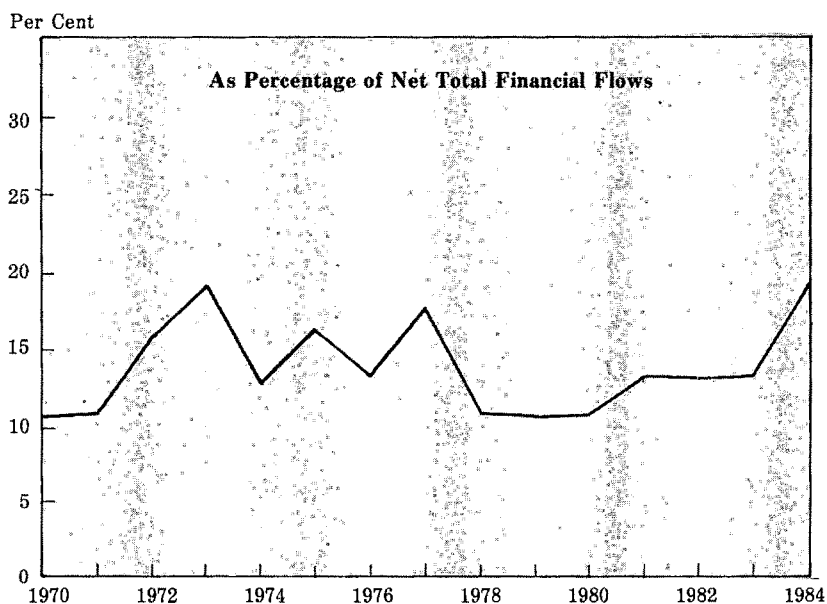
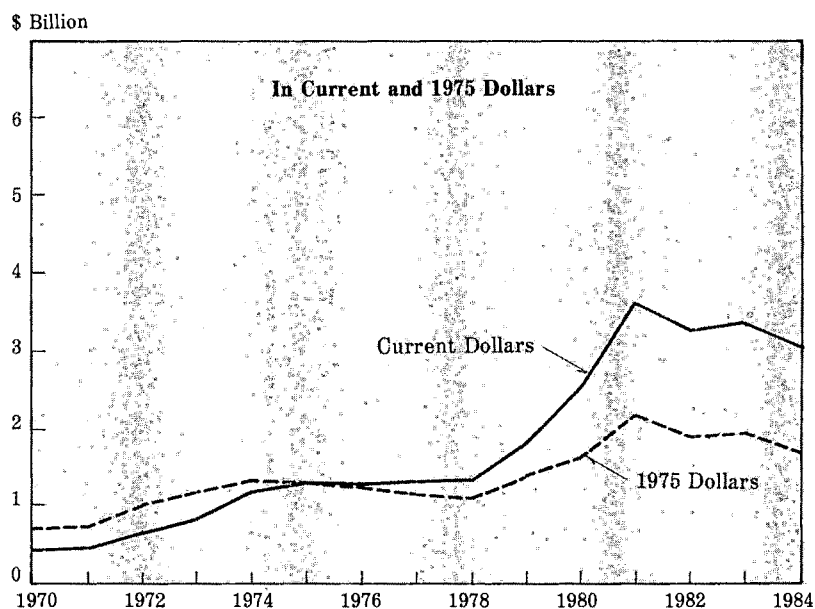
Except for 1982 and 1984, the IMF data indicate that the net flow of foreign direct investment to the Asian and Pacific developing countries as a group generally increased from \$0.5 billion in 1970 to \$3.1 billion in 1984 (see Figure 1). During this period, foreign direct investment increased at a rate of about 18 per cent per year in nominal terms and 10 per cent in real terms. The net foreign direct investment flow reached a peak at \$3.7 billion in 1981 but fell in 1982 and 1984 because of world recession and the ensuing mild recovery. The OECD data show that foreign direct investment to Asian and Pacific developing countries, although fluctuating considerably on a year-to-year basis, increased from \$0.5 billion in 1970 to \$2.8 billion in 1984 and reached a peak at \$5.7 billion in 1981 (see Figure 2).¹

There was, however, a slowdown in the rate of increase of foreign direct investment after 1973. The IMF data indicate that in real terms foreign direct investment increased at a relatively rapid rate of 27 per cent per year during 1970-1973 but slowed down to 4 per cent during 1974-1984. The corresponding figures of growth rates based on OECD data are 44 per cent and 20 per cent, respectively.

The slowdown led to a stagnation in the share of foreign direct investment in net total financial flows. While this share, according to IMF data, fluctuated considerably in the post-1973 period, it remained virtually unchanged at 14 per cent during 1980-1984 compared with 1974-1979. The OECD data show that the share increased marginally from 14 per cent in 1974-1979 to 15 per cent in 1980-1984. On the other hand, total short-term and long-term international borrowing of the Asian and Pacific developing countries increased by 13 per cent

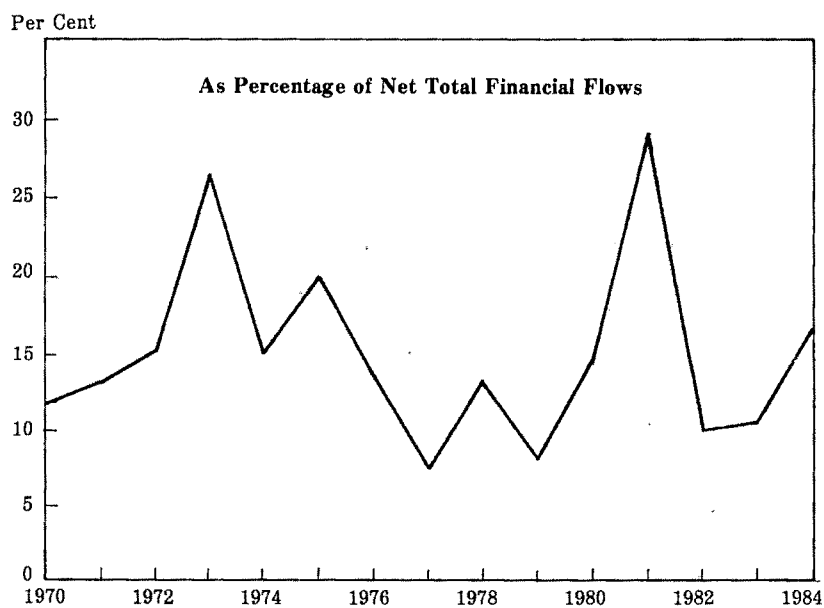
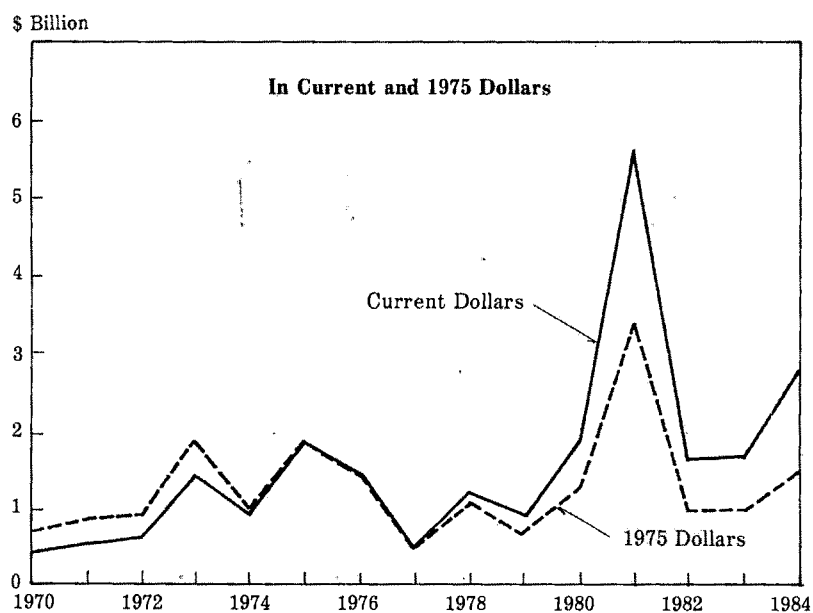
1. The higher OECD estimate of foreign direct investment flows to Asian and Pacific developing countries in 1981 compared with the IMF estimate suggests that there was a considerable outflow of short-term capital from these countries.

Figure 1: Asian and Pacific Developing Countries: Net Foreign Direct Investment, 1970-1984 (IMF Data)



Sources: International Monetary Fund, *International Financial Statistics*, computer tapes (Washington, D.C.); and Asian Development Bank, *Key Indicators of Developing Member Countries of ADB* (Manila, various issues).

Figure 2: Asian and Pacific Developing Countries: Net Foreign Direct Investment, 1970-1984 (OECD Data)



Source: Organisation for Economic Co-operation and Development, *Geographical Distribution of Financial Flows to Developing Countries* (Paris, various issues).

per year in real terms and its share in net total flows increased from 52 per cent in 1974-1979 to 56 per cent in 1980-1984 (see Figure 3).

There is considerable variation in the absolute and relative amounts of financial flows to different countries and groups of countries. During 1977-1983, of the 18 countries listed, the Newly Industrializing Countries (NICs) and Southeast Asian countries accounted for nearly 95 per cent of foreign direct investment inflows and the South Asian and South Pacific countries accounted for the remaining 5 per cent (see Table 1). The major factors that attracted foreign direct investment to the NICs and Southeast Asian countries were their dynamic economies having high growth rates of gross domestic product, abundance of petroleum and other natural resources (Indonesia and Malaysia), relatively large domestic markets (Indonesia, Philippines and Thailand), and favorable conditions for the manufacturing of export products (Hong Kong, Republic of Korea and Singapore). In contrast, the smaller flows to the South Asian and South Pacific countries reflect their lower economic performance and their weaker infrastructure and natural and human resource endowments.

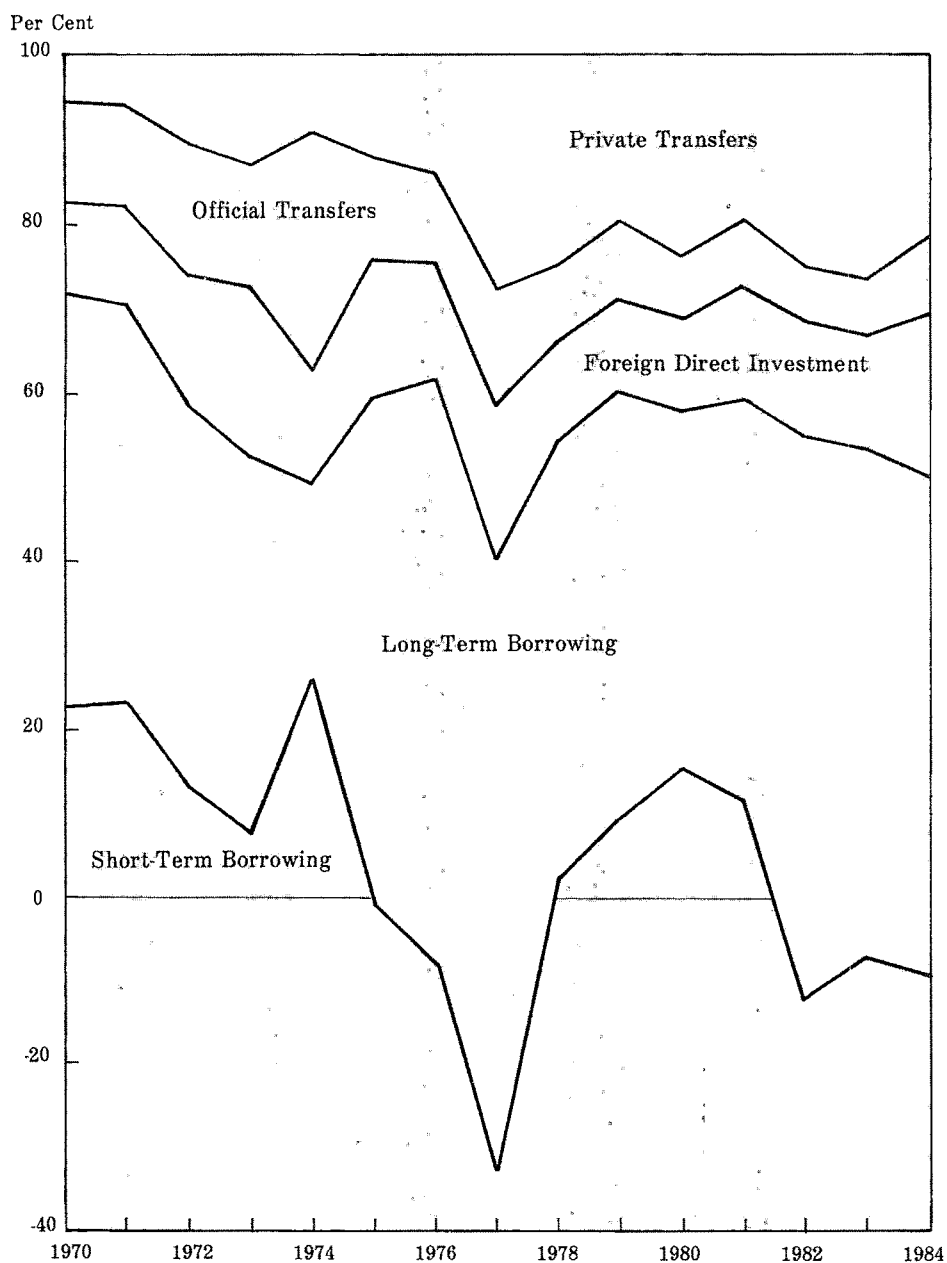
Foreign investment policies have also influenced the flow of foreign direct investment. Although there are significant variations among countries, policies towards foreign direct investment have been generally more liberal in the NICs and Southeast Asian countries than in the South Asian countries, in terms of investment promotion and incentives, performance requirements and other stipulated regulations. In recent years, the NICs and Southeast Asian countries have adopted more liberal policies towards foreign direct investment, largely to promote greater economic efficiency and higher economic growth rates.

Table 1 shows the shares of foreign direct investment in total resource inflows on a cumulative basis for selected countries. These shares have been highest in the NICs and Southeast Asian countries as a group, accounting for about 32 per cent and 16 per cent, respectively, of total resource inflows, compared with 1 per cent for the South Asian and 8 per cent for the South Pacific groups. In South Asia, there has been an overwhelming dependence on ODA, and in the South Pacific, the share of ODA is significantly higher than other forms of private sector inflows, consisting mainly of export credits and bank loans. Hong Kong and Singapore had an exceptionally high dependence on private sector inflows, particularly of foreign direct investment which accounted for 54 per cent and 67 per cent, respectively.

The data in Table 1 do not show the sectoral pattern of foreign direct investment in the recipient countries nor the sources of such finance. These characteristics can be ascertained only from national official statistics. However, because of differences in definition, scope, and coverage, it is impossible to aggregate the data and make intercountry comparisons. At best, an analysis of the available data from host country sources may indicate the sectoral pattern of foreign direct investment.

In Indonesia, the main source of data is the approved foreign investments of the Investment Coordinating Board collected since June 1967. The major

Figure 3: Asian and Pacific Developing Countries: Types of Foreign Capital Inflow, 1970-1984
(As percentage of net total financial flows)



Sources: International Monetary Fund, *International Financial Statistics*, computer tapes (Washington, D.C.); and Asian Development Bank, *Key Indicators of Developing Member Countries of ADB* (Manila, various issues).

Table 1: **Financial Flows, Cumulative 1977-1983**
(\$ million)

	Direct Investment	Portfolio Investment	Private Export Credits	Total Private Flows	Official Development Assistance	Total Resources ^a
Newly Industrializing	7,256.3	3,256.0	4,624.1	15,136.4	1,231.0	22,442.4
Hong Kong	3,461.0	597.1	2,277.4	6,335.5	53.4	6,460.7
Korea, Republic of	310.5	1,824.5	1,592.8	3,727.8	1,048.7	9,627.0
Singapore	2,913.1	569.9	607.9	4,090.9	96.3	4,341.8
Taiwan	571.7	264.5	146.0	982.2	32.6	2,012.9
Southeast Asia	5,869.3	4,972.1	5,025.6	15,867.0	10,882.3	35,944.2
Indonesia	3,689.1	1,548.2	1,469.9	6,707.2	5,446.7	15,076.7
Malaysia	505.0	1,728.4	1,532.7	3,766.1	865.6	6,122.0
Philippines	789.3	989.4	1,210.5	2,989.2	2,136.7	7,682.4
Thailand	885.9	706.1	812.5	2,404.5	2,433.3	7,063.1
South Asia	459.9	288.2	1,007.0	1,755.1	29,950.8	33,250.8
Afghanistan	10.3	2.7	-0.8	12.2	397.8	422.9
Bangladesh	28.8	-12.4	34.6	51.0	7,689.5	7,772.3
Burma	0.5	21.3	476.6	498.4	1,851.6	2,459.6
India	279.9	131.8	138.2	549.9	11,251.6	12,835.0
Nepal	0.2	0.5	-1.4	-0.7	1,037.7	1,038.3
Pakistan	80.7	155.2	264.7	500.6	5,233.1	6,040.0
Sri Lanka	59.5	-10.9	95.1	143.7	2,489.5	2,682.7
South Pacific	269.3	26.0	130.7	426.0	2,551.3	3,480.8
Fiji	71.3	8.6	-8.2	71.7	225.5	455.3
Papua New Guinea	175.4	28.4	129.4	333.2	2,141.2	2,820.0
Vanuatu	22.6	-11.0	9.5	21.1	184.6	205.5
Total	13,854.8	8,542.3	10,787.4	33,184.5	44,615.4	95,118.2

a Includes "other official flows" which are not shown separately in the table.

Sources: ESCAP/UNCTC Joint Unit on Transnational Corporations, *Trends and Pattern of Financial Flows to Developing Asian and Pacific Economies, with Special Reference to Foreign Direct Investment*, paper prepared for the Workshop on Foreign Investment Policies for Industrial Transformation of Asian Countries, Bangkok, 10-12 September 1986; and Asian Development Bank, *Key Indicators of Developing Member Countries of ADB* (Manila, July 1986).

statistical shortcomings of this source are the exclusion of sizable foreign investments in the energy, banking and insurance sectors, and the collection of data on an approved rather than on a realized basis. It has been estimated that as much as 62 per cent of foreign direct investments were directed to the energy sector and realized investments accounted for less than 40 per cent of approved investments. Apart from the energy and financial sectors, approved foreign investments in 1967-1985 were concentrated in manufacturing, followed by the primary and mining sectors. In the manufacturing sector, foreign direct investments were concentrated in textiles, leather, chemicals, rubber and basic metals.

In Malaysia, the data refer to projects in manufacturing and the hotel industry approved by the Malaysian Industrial Development Authority. The main shortcoming relates to the exclusion of the large stock of foreign direct investments made during the colonial period, mainly from the United Kingdom. In the manufacturing sector, foreign direct investments until 1980 were concentrated in food processing, textiles and textile products, electrical goods and electronic components, and chemicals and chemical products.

In the Philippines, a stock survey undertaken in 1970 by the Central Bank and Board of Investments showed that nearly 60 per cent of foreign direct investments were concentrated in the manufacturing sector, particularly in food processing, beverages, chemicals and chemical products, paper and paper products, and metal products. The Central Bank data show that as of 1983, one-half of the investments were in manufacturing, followed by the mining and financial sectors. Within the manufacturing sector, the concentration was in metals, chemicals and textiles.

In the Republic of Korea, the manufacturing sector received the major portion of foreign direct investment, averaging about 72 per cent a year of the total inflow during 1977-1983. Within the manufacturing sector, the investments were largely in response to government policy and were concentrated in the "strategic" industries, including chemicals, electrical and electronic machinery, and general machinery.

In Singapore, data on foreign equity capital made available by the Statistics Department show that as of 1981 the manufacturing sector accounted for slightly less than one-half of total foreign equity, followed by financial and business services and trade. Within the manufacturing sector, the investments were concentrated in petroleum refining, electrical and electronic products and components, and machinery. In recent years, most of new foreign direct investments and reinvestments have been in high-technology and high value-added industries, particularly computers and peripherals and petroleum products.

In Thailand, data from the Bank of Thailand on the net inflow of foreign direct investment indicate that in 1970-1985 almost one-third was concentrated in services, approximately one-third in manufacturing, and the rest in mining and quarrying and construction. Within the manufacturing sector, the concentrations were in electrical and electronic products and components, textiles, chemicals, and petroleum.

The major sources of foreign direct investment in the NICs and Southeast Asian countries have been the United States, Japan, and countries of the European Economic Community (EEC). Also, there have been substantial investments from developing countries. In Indonesia, Japan accounted for one-third of the approved foreign investments up to 1985, the EEC for 16 per cent and the Asian NICs for 13 per cent. The share of the United States was only 4 per cent, but it could well be the largest source if investments in petroleum and banking are included. In Malaysia, the approved foreign investments in manufacturing and hotels up to 1980 suggest that Singapore was the leading source of foreign direct investments with a share of 25 per cent, followed by Japan (20 per cent) and the United Kingdom (18 per cent). In the Philippines, Central Bank data up to 1983 indicate that the United States was the dominant source of foreign direct investments with a share of 51 per cent, followed by Japan and the EEC (16 per cent each). In Singapore, the EEC accounted for one-third of the investment by 1981, followed by the United States (19 per cent), Hong Kong (13 per cent) and Japan (10 per cent). In Thailand, data from the Bank of Thailand indicate that the United States accounted for one-third of foreign direct investments during 1970-1985, followed by Japan (28 per cent), the EEC (16 per cent) and Hong Kong (10 per cent). In the Republic of Korea, Japan and the United States each accounted for 37 per cent of the inflows during 1977-1983. However, while investments from Japan slowed down in the early 1980s, those from the United States accelerated.

The flow of foreign direct investments to Asian and Pacific developing countries is influenced by (i) policies of the host countries such as incentives and regulations; (ii) policies of source countries such as tax benefits, investment insurance and information about opportunities; and (iii) changes in the international financial system. Although these factors are closely related — for example, the oil shocks in 1973/74 and 1979/80 which had major repercussions on the international financial system also led to policy adjustments in both host and source countries — for purposes of discussion, the first may be considered as an internal factor and the second and the third as external factors.

To some extent, the slowdown in real economic growth and the decrease in the share of foreign direct investment in total financial flows to the Asian and Pacific developing countries in the post-1973 period was due to unfavorable policies in host countries. In the mid-1960s, the Republic of Korea and Taiwan, in pursuit of outward-looking development strategies, adopted relatively open trade and investment policies; later, other countries adopted similar strategies. In the 1970s, however, many countries adopted a more cautious attitude. For example, Indonesia and the Philippines permitted only joint ventures, and Malaysia introduced its New Economic Policy which established guidelines on corporate ownership.

There were three major reasons for the changing attitudes of the host countries. First, alternative sources of finance (e.g., commercial bank lending) were readily available. Second, many of the countries were disappointed with their

earlier experiences with multinational companies. The major concerns were the political implication of controls over domestic resources, the transfer pricing mechanism and the appropriateness of the transferred technology. Third, until recently, nationalistic sentiments against foreign direct investment had arisen in several countries of the region.

Although the source countries have generally adopted an open policy towards foreign direct investment and provided investors with low-cost credit, tax benefits and insurance schemes guaranteeing against political and other risks, there was skepticism in both the host countries and among potential investors during the post-1973 period. Faced with unfavorable sentiments in some host countries, inconsistencies between incentives and regulations, and unstable economic and political situations in some countries, many investors became wary of committing capital in the host countries. Investors also started to "unbundle" resources previously provided by foreign direct investment and encouraged new forms of international investment such as licensing agreements, franchising and management contracts where the equity content was lower. Rising protectionism in the industrial countries also discouraged foreign direct investment to developing countries, especially export-oriented investment. On the positive side, several of the creditor countries were able to legislate bilateral double-taxation agreements with developing countries in the Asian and Pacific region, and some countries established insurance schemes to protect potential investors. On the whole, however, in the post-1973 period, the policies of source countries were not conducive to an increased flow of foreign direct investment to Asian and Pacific developing countries.

Although the attitudes of both host and source countries towards foreign direct investment became increasingly unfavorable during the post-1973 period, the more important factors influencing the flow of foreign direct investment were changes in the international financial system. The changes were under way by the late 1960s when the large commercial banks increased their international operations and, attracted by promising growth prospects, increased their lending to the more rapidly industrializing countries. This trend continued after 1973 when, due to the increase in oil prices, a large portion of world savings shifted to the OPEC countries. The OPEC countries initially had a preference for bank deposits over other assets, primarily because, unlike industrial countries, they did not have the expertise or industrial base to establish enterprises abroad. The recycling of OPEC funds provided an ample supply of funds for commercial banks to lend abroad. The low real interest rates until the late 1970s also helped increase the significance of foreign borrowings over direct investment capital.

To sum up, the slowdown in growth and stagnation in the share of foreign direct investment in total flows to the Asian and Pacific region was due to both internal and external factors. In relative terms, however, external factors, particularly the various structural changes in the international financial system, were more important than internal factors. Since the developing countries of the region account for only a small proportion of international capital flows, their

influence on the international financial system is limited. This indicates that changes in policies of the developing countries of the region alone may not be very effective in attracting foreign direct investment unless the adverse trends in the international financial system are reversed. However, before discussing this topic further, it may be useful to examine the impact of foreign direct investment on economic growth and allocative efficiency in the region.

Economic Growth, Efficiency and Foreign Direct Investment

The importance of foreign direct investment flows to the Asian and Pacific developing countries can be measured in two ways: first, by examining such investment in relation to net total foreign resource inflows for each country; and second, by comparing these inflows with gross domestic capital formation (see Table 2). The data indicate that foreign direct investment plays an important role in Hong Kong and Singapore where it accounts for over one-half to two-thirds of total foreign inflows, and in Indonesia and Taiwan where it accounts for approximately one-third of the total inflows. The data also show that foreign direct investment forms only a small proportion of gross capital formation. This is especially so if Hong Kong, Indonesia (where oil and oil-induced development contributed to large foreign direct investment inflows), Fiji, Papua New Guinea and Singapore are excluded. For the remaining countries, the contribution of foreign direct investment to capital formation is nearly 1 per cent or less.

Both sets of statistics underestimate the importance of foreign direct investment in the region for two reasons. First, the statistics exclude ploughed-back profits by foreign-owned firms and borrowings by these firms in the host country market. Second, the data do not allow for the fact that equity contributions of foreign investors may be in the form of technology and/or management services.

There is considerable controversy about the impact of foreign capital (including foreign direct investment) on economic growth in developing countries. Assuming that every dollar in foreign inflows augmented resources available for capital formation by one dollar and that such inflows did not influence the incremental capital-output ratio, it has been shown that foreign capital had a favorable effect on growth.² More recently, both these assumptions have been challenged.³ Foreign capital could substitute for domestic saving for two

2. For example, Hollis B. Chenery and Alan M. Strout, "Foreign Assistance and Economic Development", *American Economic Review*, vol. 56, no. 4, part 1 (September 1966), pp. 679-733; and P.N. Rosenstein-Rodan, "International Aid for Underdeveloped Countries", *Review of Economics and Statistics*, vol. 43, no. 2 (May, 1961), pp. 107-138. For a survey of this literature, see M.G. Quibria, "Two-Gap Models of Foreign Aid: A Survey", *Journal of Economic Development*, vol. 5, no. 1 (July 1980), pp. 67-89.

3. Kaj Areskoug, "Foreign Capital Utilization and Economic Policies in Developing Countries", *Review of Economics and Statistics*, vol. 55, no. 2 (May 1973), pp. 182-189; Keith Griffin, "Foreign Capital, Domestic Savings and Economic Development", *Bulletin of the Oxford University Institute of Economics and Statistics*, vol. 30, no. 2 (1970), pp. 99-112; Nathaniel H. Leff, "Dependency Rates and Savings Rates", *American Economic Review*, vol. 59, no. 5 (December 1969), pp. 886-896; and Thomas E. Weisskopf, "The Impact of Foreign Capital Inflow on Domestic Savings in Underdeveloped Countries", *Journal of International Economics*, vol. 2, no. 1 (February 1972), pp. 25-38.

Table 2: Net Foreign Direct Investment as Percentage of Total Resource Inflows and Gross Domestic Capital Formation, Cumulative 1977-1983 (Percentages)

	Net Foreign Direct Investment as Percentage of	
	Total Resource Inflows	Gross Domestic Capital Formation
Newly Industrializing	32.3	2.4
Hong Kong	53.6	6.3
Korea, Republic of	3.2	0.2
Singapore	67.1	8.2
Taiwan	28.4	0.7
Southeast Asia	16.3	2.1
Indonesia	24.5	3.5
Malaysia	8.2	1.0
Philippines	10.3	1.2
Thailand	12.5	1.6
South Asia	1.4	0.1
Afghanistan	2.4	0.4
Bangladesh	0.4	0.3
Burma	0.0	0.0
India	2.2	0.1
Nepal	0.0	0.0
Pakistan	1.3	0.3
Sri Lanka	2.2	0.8
South Pacific	7.7	4.3
Fiji	15.7	3.5
Papua New Guinea	6.2	4.2
Vanuatu	11.0	..
Total	14.6	1.6

.. = not available.

Sources: ESCAP/UNCTC Joint Unit on Transnational Corporations, *Trends and Pattern of Financial Flows to Developing Asian and Pacific Economies, with Special Reference to Foreign Direct Investment*, paper prepared for the Workshop on Foreign Investment Policies for Industrial Transformation of Asian Countries, Bangkok, 10-12 September 1986; and Asian Development Bank, *Key Indicators of Developing Member Countries of ADB* (Manila, July 1986).

reasons. First, the inflow of foreign capital could induce governments to relax their tax efforts, increase their consumption expenditure, and/or liberalize imports. Second, foreign private investment could crowd out domestic investment and, if saving is determined by available investment opportunities, this could cause domestic saving to fall. Foreign capital could also contribute to inefficiency by introducing inappropriate techniques, technology and managerial systems. Under these circumstances, foreign capital could have an adverse effect on growth.

Empirical evidence on the impact of foreign capital on growth has focused on estimating a neoclassical production function where economic growth is determined by the accumulation of the factors of production, i.e., labor and capital, with the latter differentiated by source, domestic or foreign. Studies have generally indicated that foreign inflows have contributed favorably to the economic growth of the Asian and Pacific developing countries.⁴

These studies, however, have two major shortcomings. First, they do not account for all the factors which influence economic growth rate, including the impact of trade orientation on growth. Second, they fail to account for the two-way causality which exists between domestic saving and growth. The failure to account for these factors could lead to misleading results and casts doubt on the reliability of the findings.

An attempt has been made in a recent study to remedy these deficiencies by developing a more comprehensive method based on a system of simultaneous equations.⁵ Analysis from a wide sample of developing countries in Asia confirmed that earlier studies which focused on direct effects of foreign direct investment alone contained misleading results. In particular, the study found that foreign capital inflows made a positive contribution to economic growth in the Asian and Pacific developing countries. While foreign direct investment had contributed to growth both by augmenting resources available for capital formation and by improving the efficiency of investments, foreign aid had contributed only to capital formation. This suggests that foreign aid may have been used to finance projects which were unnecessarily capital-intensive. The study also found that, in relative terms, foreign direct investment and export performance contributed more to economic growth than aid, supporting the view prevalent in several major industrial countries that developing countries should adopt self-help policies, based predominantly on well-functioning market mechanisms rather than rely on foreign aid for the bulk of their development assistance.

4. Gustav F. Papanek, "Aid, Foreign Private Investment, Savings, and Growth in Less Developed Countries", *Journal of Political Economy*, vol. 81, no. 1 (January/February 1973), pp. 120-130; Colin Stoneman, "Foreign Capital and Economic Growth", *World Development*, vol. 3, no. 1 (January 1975), pp. 11-26; John Malcolm Dowling, Jr. and Ulrich Hiemenz, "Aid, Savings, and Growth in the Asian Region", *The Developing Economies*, vol. 21, no. 1 (March 1983), pp. 3-13; and Kanhaya L. Gupta and M. Anisul Islam, *Foreign Capital, Savings and Growth*, International Studies in Economics and Econometrics, vol. 9 (Dordrecht, Holland: D. Reider Publishing Company, 1983).

5. Jungsoo Lee, Pradumna B. Rana and Yoshihiro Iwasaki, *Effects of Foreign Capital Inflows on Developing Countries of Asia*, Economics Staff Paper, no. 30 (Manila: Asian Development Bank, April 1986).

Improving the Environment for Foreign Direct Investment

As discussed earlier, trends in foreign direct investment to the Asian and Pacific developing countries in the post-1973 period were influenced primarily by adverse changes in the international financial system. In recent years, however, the situation has altered. Real interest rates increased significantly in 1979-1980 and although they have fallen since then, they are still relatively high. Also, since 1982 the increasing world supply of oil has led to a significant fall in the real price of oil and in the OPEC surplus. Moreover, commercial banks have become cautious about lending to the highly indebted countries in the Asian and Pacific region. Several initiatives have been taken by international organizations to increase the flow of foreign direct investment to developing countries. These include the Multilateral Investment Guarantee Agency (MIGA) proposed by the World Bank and investment trusts proposed by the International Finance Corporation (IFC) of the World Bank group. While the former seeks to provide insurance protection to foreign direct investment at a multilateral level, the latter attempts to facilitate the process of converting developing country debt into equity. There is, therefore, a considerable potential for developing countries in the region to attract more foreign direct investment and to increase its relative share in net financial flows.

The extent to which this potential might be realized depends ultimately on the attitude of the host countries towards foreign direct investment and primarily on the economic and political environment. Open development strategies with realistic financial and exchange rate policies would be preferable to import-substituting strategies bolstered by inappropriate monetary and exchange rate regimes. Although several countries that have adopted the latter type of strategies have been able to attract foreign direct investment because of their huge markets, import restrictions have, on occasions, provided foreign investors with higher rates of return than local investors in the host countries. Open strategies, on the other hand, tend to minimize price distortions and gear investments to sectors where the host country has a comparative advantage.

Developing countries should critically review the scheme of incentives that they provide and the regulations on performance that they impose on foreign direct investment. Restrictions have sometimes taken the form of limitations on the degree of foreign participation or prohibitions on entry to particularly sensitive areas. For example, in Thailand certain industries have been reserved only for nationals of the country, and in Indonesia and the Philippines only joint-venture type arrangements have been permitted. It is, however, noteworthy that "specific incentives and regulations governing direct investment have had less effect on how much investment a country receives than has its general economic and political climate, and its financial and exchange rate policies".⁶

Host countries in the Asian and Pacific region should also consider conver-

6. World Bank, *World Development Report 1985* (New York: Oxford University Press, 1985), p. 130.

sion of debt into equity by offering foreign creditors the option of holding equity claims. This is because such schemes could increase the inflow of foreign direct investment and also permit a reduction of future debt accumulation. In this regard, useful lessons could be learned from the experiences of Brazil, Mexico and Turkey (which initiated this scheme in 1980).

The policies of industrial countries could also go a long way in encouraging foreign direct investment to developing countries in the region. In this regard, trade liberalization in industrial countries would be particularly helpful. Rising protectionism in these countries has, by encouraging inefficient industries at home, reduced the incentives for investors to produce elsewhere. Also, despite the increase in the number of national and private insurance schemes in the source countries, there appear to be opportunities for further improvements and extensions of such schemes.

Concluding Remarks

Four major conclusions emerge from this discussion.

First, foreign direct investment has contributed significantly to the economic growth and efficiency of developing countries in the Asian and Pacific region. There are indications that it has contributed more than foreign aid, supporting the view that in addition to financing capital formation, it facilitates the transfer of technology and managerial skills. It is, therefore, desirable to reverse the post-1973 stagnation in the share of foreign direct investment in net total flows to the region.

Second, the international environment is now favorable to increased foreign direct investment to developing countries and there is, therefore, a significant potential to attract such investment to this region. However, an important precondition is the existence of a stable political and economic environment accompanied by outward-looking development strategies and realistic financial and exchange rate policies.

Third, the policies of industrial countries can also have a significant impact on the flow of foreign direct investment to the region. Liberal trade and industrial policies will be particularly helpful, as well as insurance schemes for overseas investment.

Fourth, several initiatives undertaken by multilateral agencies would have favorable effects on the flow of foreign direct investment to the region. These include the MIGA proposed by the World Bank and investment trusts proposed by the IFC.

In this article, it has been argued that there is a good potential for attracting foreign direct investment to the Asian and Pacific developing countries. However, an important question that should also be addressed is whether foreign direct investment can substitute for a significant decline in other types of capital flows such as borrowing from commercial banks and foreign aid.

Four main features of foreign direct investment suggest that it should complement rather than be a substitute for other types of foreign capital. First, the size of foreign direct investment is small relative to other types of financial flows. For example, while the cumulative level of such investment to the Asian and Pacific developing region during 1977-1983 was about \$13 billion according to OECD data, borrowing from commercial banks and ODA amounted to about \$26 billion and \$45 billion, respectively. This implies that even a large increase in foreign direct investment is unlikely to match a small decline in borrowed funds and foreign aid. Second, foreign direct investment is highly concentrated in the region, primarily in the more rapidly growing countries and those with large domestic markets. Third, while foreign direct investment generally finances specific investments, borrowing from commercial banks is more for general purposes. Fourth, while foreign aid finances primarily public sector projects such as physical infrastructure, urban development, social services and rural development, foreign direct investment finances mainly private sector activities.

Other types of foreign capital flows help to create investment opportunities and to complete the financing of enterprises undertaken by foreign direct investment. Also, foreign aid, both bilateral and multilateral, facilitates foreign direct investment by helping to finance infrastructure and creating investment opportunities for domestic and foreign investors. The relationship between foreign direct investment and other types of foreign capital is, therefore, more complementary than substitutive.

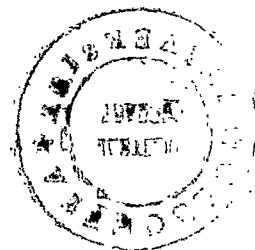
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A Note from the Editor

The *Asian Development Review* was launched in 1983 as a part of the Asian Development Bank's effort to play a more broadly based development role in the Asian and Pacific region. In this endeavor, the *Review*, from time to time, focuses on a topic of interest to the region.

The theme of this issue is the role of the public sector in economic development. This sector has made substantial contributions to the developing economies of the Asian and Pacific region as in other parts of the world. It has provided essential social services, undertaken large investments in infrastructure and promoted financial and industrial development. It has also encouraged private sector activities through fiscal and other incentives.

However, with the growing budgetary difficulties, mounting debt-servicing burdens and poor performance of many public sector enterprises, there is increasing discussion about the appropriate future role of the public and private sectors in the Asian and Pacific developing countries. Several proposals are being put forward to enlarge the private sector through more effective incentives and greater encouragement of foreign direct investment.

It is hoped that the articles in this *Review* will stimulate further study and wider discussion on the role of the public and private sectors in economic development and help in the formulation of sound policies for achieving sustained optimum growth.

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Financing Public Sector Development Expenditure: The Asian Experience <i>Kedar N. Kohli</i>	1
The Public Sector in the Market Economies of Developing Asia <i>Vito Tanzi</i>	31
Optimizing the Role of the Public Sector: Constraints and Remedial Policies <i>Leo Pliatzky</i>	58
The Role of Government in Economic Development: The Korean Experience <i>Whang In-Joung</i>	70
The Role of Public Enterprises in India <i>Amiya K. Bagchi</i>	89

Financing Public Sector Development Expenditure: The Asian Experience

Kedar N. Kohli*

The public sector has played a key role in the economies of Asian developing countries. Most of these countries, after achieving political independence, embarked on national economic development plans involving ambitious investment programs. The need for building up physical and social infrastructure and the risks associated with large industrial investments in the absence of developed capital markets provided the rationale for the active participation of the public sector in the development process. Also, it was considered that the involvement of the public sector was necessary to generate sufficient domestic savings through budgetary surpluses and profits of public enterprises to finance development expenditures.

In recent years, however, the countries that adopted development strategies based on a large public sector participation faced persistent and growing difficulties. This situation has emerged basically from the failure of the public sector to generate the requisite savings. Government expenditures have grown at a more rapid pace than revenues, while the performance of public enterprises has generally been below expectations. As a result, many countries have become increasingly dependent on domestic and external borrowing to finance rising levels of public investment. This, in turn, has led to a heavy burden of interest payments on the budget and aggravated inflationary pressures, undermining further the capacity of the public sector to generate savings. Also, the external debt-service burden of many countries has greatly increased. Many governments have therefore been forced to drastically reduce their allocations for development financing.

This article analyzes the factors that have contributed to the growing constraints on saving faced by the public sector in seven selected Asian developing

* Chief Economist, Asian Development Bank. This article draws heavily on a study (Asian Development Bank, *Financing Public Sector Development Expenditure in Selected Asian Developing Countries*, forthcoming) carried out by the Asian Development Bank in cooperation with national research institutions. Country studies were conducted by Bangladesh Institute for Development Studies, Bangladesh; National Institute of Public Finance and Policy, India; Center for Strategic and International Studies, Indonesia; Integrated Development Studies Systems, Nepal; Lahore University of Management Sciences, Pakistan; Philippine Institute of Development Studies, Philippines; and Thai Khadi Research Institute, Thammasat University, Thailand. Many of the conclusions and proposals in this article emerged from the country studies. Amaresh Bagchi assisted in the preparation of the overview of the study. The author wishes to acknowledge the assistance provided by A.H.M.N. Chowdhury in the preparation of this article.

countries.¹ It first examines the shares of public sector saving and investment in total saving and investment and the trends in budgetary revenue and expenditure. It then assesses the performance of public sector enterprises, particularly in their saving effort. Finally, it suggests some domestic policy reforms that may be necessary to overcome the constraints faced by the public sector in these countries.

The Resource Gap of the Public Sector

Except for Bangladesh and Pakistan, domestic saving in the countries included in this article was generally high during 1975-1985 compared with other developing countries at similar stages of development.² However, in recent years, domestic saving in several of the countries (Bangladesh, Nepal, Pakistan, Philippines and Thailand) sharply declined. Except for Indonesia, all the countries depended on external resources for financing their investment needs (see Table 1). Indonesia had a surplus in saving because of its large oil export earnings; however, since 1985 its resource position has been strained because of falling export revenues and rising debt-service liabilities.

The available data indicate that the saving-investment gap widened in the first half of the 1980s compared with the second half of the 1970s, mainly because of the growing gap between saving and investment in the public sector (see Table 2). Except for Pakistan and the Philippines, while public saving as a percentage of gross domestic product (GDP) was lower, investment in the public sector continued to increase in all the countries. In Pakistan, the public sector's saving gap was lower largely due to a decline in the rate of government investment, while in the Philippines both saving and investment declined. The inflow of external resources in the countries was largely used by the public sector, but these resources were insufficient to meet the sector's investment needs. Consequently, the public sector had to draw heavily on the savings of the private sector.

A breakdown of the public sector resource gap shows that during the first half of the 1980s virtually all the countries experienced a marked deterioration in the resource position of government administration (see Table 3). While the deficits of public sector enterprises contributed to the saving-investment gap in the public sector, the deterioration in its resource position stemmed mainly from the low or negative savings in the government budget.

In all the countries, public sector enterprises generated surpluses, but these were inadequate to meet investment requirements. The gap between their own resources and investment widened in the first half of the 1980s, particularly in the Southeast Asian countries where public sector enterprises experienced high growth in their effort to offset a decline in private investment.

1. The countries included in this article are Bangladesh, India, Indonesia, Pakistan, Philippines, Nepal and Thailand.

2. In Bangladesh and Pakistan, the contribution of workers' remittances to investment exceeds total domestic savings.

Government Revenues

A major concern in most of the countries has been the increasing disequilibrium between revenues and expenditures in the government budget. Although all the governments adopted measures to increase tax and non-tax revenues, the pressures to increase recurrent expenditures have been even greater. As a result, the budgetary resources available for financing investment have declined. In several of the countries, current expenditures exceeded current

**Table 1: Trends in Domestic Saving, Investment and
Net Inflow of Capital from Abroad**
(Percentage of GDP)

Country		Gross Domestic Capital Formation		Gross Domestic Saving		Investment-Saving Gap	
		T	A	T	A	T	A
Bangladesh	I ^a	12.0	12.5	6.9	3.2	5.1	9.3
	II ^b	12.6	13.2	3.8	2.0	8.8	11.2
India	I	20.0	21.9	20.1	22.5	0.1	0.6
	II	24.4	24.2	22.9	22.6	1.5	1.6
Indonesia	I	20.3	20.5	21.0	23.0	-0.7	-2.5
	II	20.4	22.3	31.3	27.0	-10.9	-4.7
Nepal	I	14.7	16.5	11.3	12.1	3.4	4.4
	II	17.7	16.4	8.9	7.9	8.8	8.5
Pakistan	I	19.6	17.3	9.0	7.7	10.6	9.6
	II	16.2	14.2	3.5	4.8	12.7	9.4
Philippines	I	29.5	29.9	24.2	25.3	5.3	4.6
	II	19.2	27.6	16.4	21.8	2.8	5.8
Thailand	I	25.3	26.1	23.7	23.1	1.6	3.0
	II	23.9	24.0	18.1	19.7	5.8	4.3

Notes: I = subperiod 1975/76 to 1979/80.

II = subperiod 1980/81 to 1984/85.

T = terminal year figures. Unless indicated otherwise, the terminal year for subperiod I is 1974/75 and for subperiod II, 1984/85.

A = average for the subperiod.

a 1976/77.

b 1985/86.

Source: Asian Development Bank, *Financing Public Sector Development Expenditure in Selected Asian Developing Countries* (forthcoming).

Table 2: Resource Gap of the Public and Private Sectors
(Percentage of GDP)

Country		Public Sector						Private Sector					
		Gross Domestic Capital Formation			Gross Domestic Saving			Gross Domestic Capital Formation			Gross Domestic Saving		
		T		A	T		A	T		A	T		A
		Investment-Saving Gap		Investment-Saving Gap		Investment-Saving Gap		Investment-Saving Gap		Investment-Saving Gap		Investment-Saving Gap	
India	I	10.4	10.0	4.5	4.8	5.9	5.2	9.6	12.4	15.6	17.7	-6.0	-5.7
	II	12.1	11.6	3.0	4.1	9.1	7.5	12.3	12.6	19.9	18.5	-7.6	-5.9
Indonesia	I	"	"	"	"	"	"	"	"	"	"	"	"
	II	6.6	6.7	17.3	12.6	-10.7	-5.5	13.8	15.6	14.0	14.4	-0.2	1.2
Nepal	I	5.2	6.1	-1.0	-0.2	6.2	6.3	9.5	10.4	12.3	12.3	-2.8	-1.9
	II	9.4	7.8	-3.7	-3.1	13.1	10.9	8.3	8.6	12.6	11.0	-4.3	-2.4
Pakistan	I	13.6	11.3	0.9	1.8	12.7	9.5	6.0	6.0	8.1	5.9	-2.1	0.1
	II	9.9	8.2	0.6	2.5	9.3	5.7	6.3	6.0	2.9	2.3	3.4	3.7
Philippines	I	7.1	10.0	3.6	4.1	3.5	5.9	22.4	19.9	20.6	21.2	1.8	-1.3
	II	8.2	9.7	3.7	4.5	4.5	5.2	11.0	17.8	12.7	17.3	-1.7	0.5
Thailand	I	5.2	7.0	3.6	3.0	1.6	4.0	20.2	19.1	20.2	20.1	-	-1.0
	II	8.0	8.4	2.2	1.5	5.8	6.9	15.6	15.6	16.0	18.2	-0.4	-2.6

.. = not available.

-- = nil.

Notes: I = subperiod 1975/76 to 1979/80.

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T = terminal year figures. Unless indicated otherwise, the terminal year for subperiod I is 1974/75 and for subperiod II, 1984/85.

A = average for the subperiod.

Source: Asian Development Bank, *Financing Public Sector Development Expenditure in Selected Asian Developing Countries* (forthcoming).

Table 3: Total Government Revenue and Expenditure
(Percentage of GDP)

Country	Revenue				Expenditure				Total Surplus or Deficit(-)		Current Budget Surplus or Deficit(-)						
	Tax		Non-Tax		Total		Current		Capital		Total		Col. 3 less Col. 6		Col. 3 less Col. 4		
	T	A	T	A	T	A	T	A	T	A	T	A	T	A	T	A	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
Bangladesh	I	7.2	7.5	1.5	1.3	8.6	8.8	5.7	6.3	8.5	10.0	14.3	16.2	-5.7	-7.4	-2.9	2.5
	II	7.8	7.8	1.6	1.5	9.4	9.3	7.8	6.8	9.3	10.7	17.1	17.4	-7.7	-8.1	1.6	2.5
India	I	16.9	17.4	0.06	0.2	17.0	17.6	14.0	14.9	5.4	6.0	19.4	20.9	-2.4	-3.3	3.0	2.7
	II	18.9	18.4	0.65	0.2	19.6	18.6	22.5	17.4	4.7	5.6	27.2	23.0	-7.4	-4.4	-1.2	1.2
Indonesia	I ^a	16.1	..	1.7	..	17.8	..	10.9	..	7.6	..	20.0	..	-2.2	..	6.9	..
	II ^b	13.9	..	2.3	..	16.2	..	13.2	..	8.1	..	21.3	..	-5.1	..	3.0	..
Nepal	I	5.2	6.2	1.3	1.4	6.4	7.7	..	..	..	..	..	..	..	..	..	..
	II	7.6	7.3	1.8	1.6	9.4	8.8	11.7	10.2	8.0	8.0	19.7	18.2	-10.3	-9.4	-2.3	-1.4
Pakistan	I	12.0	12.6	3.7	3.5	15.7	16.1	17.2	16.5	11.0	10.4	28.2	26.9	-12.5	-10.8	-1.5	-0.4
	II	13.0	13.5	3.9	3.6	16.9	17.1	20.0	18.0	8.0	9.0	28.0	27.0	-11.1	-9.9	-3.1	-0.9
Philippines	I	12.0	11.6	2.7	2.1	14.7	13.7	12.8	11.3	3.1	3.6	16.0	14.9	-1.3	-1.2	1.9	2.4
	II	9.6	10.4	1.4	1.5	11.0	11.9	8.2	8.9	4.4	5.6	12.6	14.5	-1.6	-2.6	2.8	3.0
Thailand	I	12.5	13.0	1.5	1.4	14.0	14.4	12.5	13.4	3.6	4.4	16.1	17.8	-2.1	-3.4	1.5	1.0
	II	14.9	14.3	1.5	1.5	16.5	15.8	16.4	15.8	3.8	4.4	20.3	20.3	-3.8	-4.5	-	-

.. = not available. a 1975.

- = nil. b 1986.

Notes: I = subperiod 1975/76 to 1979/80.

II = subperiod 1980/81 to 1984/85.

T = terminal year figures. Unless indicated otherwise, the terminal year for subperiod I is 1974/75 and for subperiod II, 1984/85.

A = average for the subperiod.

Source: Asian Development Bank, *Financing Public Sector Development Expenditure in Selected Asian Developing Countries* (forthcoming).

revenues, making these countries dependent on borrowing even to finance current expenditures.

If the budget deficits of the countries have to be reduced or eliminated, particular attention must be paid to measures to reduce the growth of expenditures, both by curtailing non-essential current expenditures and by lowering public sector investments. The level of taxation in most of the countries is relatively high, yet there are several possibilities for increasing tax and non-tax revenues.

Level and Structure of Taxes

In all the countries, taxes provide most of the government revenues, contributing more than 75 per cent of total revenue. Except for the Philippines, tax revenues as a percentage of GDP increased in all the countries, with India and Indonesia leading with a ratio of tax revenue to GDP of nearly 19 per cent in 1984/85 (see Table 4).³

In most of the countries, while government revenues increased, no consistent and systematic approach has been adopted to achieve the revenue objectives. Instead, there appears to have been a growing multiplicity of taxes, ad hoc amendments to existing tax laws and various anomalies. These anomalies and inequities arose partly from the preponderance of indirect taxes and partly from the manner in which taxes were levied, embracing almost all commodities and at various stages of production and trade.

Direct Taxes. As in most developing countries, direct taxes consist mainly of tax on personal income and tax on company profits (corporation tax). Income tax contributed only between 6 and 10 per cent of the total tax revenue; in Indonesia, the share was even lower at about 3 per cent. Except for Nepal and Thailand, the share of income tax in total tax revenue declined in the other countries.

The slow growth in income tax revenue is a reflection of the low elasticity of this tax. This appears rather surprising because of the progressive nature of the tax which should normally make it an elastic source of revenue, i.e., when incomes rise, revenues from income tax should increase even faster. In some countries, the buoyancy of income tax, which includes the impact of discretionary changes in the coverage and rate structure, is even lower than its elasticity. This suggests that the discretionary changes introduced over the years have adversely affected the growth of revenue.

The major reasons for limited revenue from income tax are the relatively narrow tax base and widespread tax evasion in most of the countries. The narrowness of the base arises from the high exemption limits, on the one hand, and the liberal deductions allowed, on the other. In all the South Asian countries,

3. In this article, years referred to as "1984/85" are fiscal years.

Table 4: Ratio of Tax to Gross Domestic Product
(Percentages)

Country	Direct Taxes						Indirect Taxes						Total Tax Revenue											
	Income Tax			Corporation Tax			Total			Customs			Excise			Sales Tax			Total	T	A			
	T		A	T		A	T		A	T		A	T		A	T		A						
	T	A		T	A		T	A		T	A		T	A		T	A							
Bangladesh	I	0.8	1.0		—	0.1		1.3	1.4		3.8	4.1		1.8	1.7		0.2	0.2		5.9	6.2	7.2	7.5	
	II	1.0	1.1		0	0		1.5	1.5		4.4	4.4		1.8	1.8		..	..		6.4	6.3	7.8	9.3	
India	I	1.8	1.5		1.3	1.4		3.8	3.4		2.2	2.5		5.8	6.5		3.0	3.2		13.2	13.9	16.9	17.4	
	II	0.9	1.1		1.5	1.5		2.7	2.9		3.6	3.5		6.8	6.7		3.9	3.8		16.3	15.5	18.9	18.4	
Indonesia	I ^a	0.5	..		10.3	..		11.9	..		1.8	..		0.8	..		1.5	..		4.1	..	16.1	..	
	II ^b	0.5	..		13.7	..		15.4	..		1.1	..		1.0	..		1.1	..		3.0	..	18.5	..	
Nepal	I	0.5	0.6		0.3	0.3		1.3	1.3		2.1	2.4		0.8	0.9		0.9	1.4		3.9	4.9	5.2	6.2	
	II	0.9	0.7		0.2	0.2		1.3	1.3		2.5	2.5		1.2	1.1		2.0	2.0		6.2	6.0	7.3	7.3	
Pakistan	I	0.7	0.9		0.3	0.5		1.7	1.8		4.0	4.7		3.5	3.6		0.9	0.9		8.4	4.2	10.9	11.7	
	II	0.6	0.6		1.2	1.2		1.9	2.3		5.0	5.0		3.8	3.7		1.0	1.0		9.8	9.7	12.3	12.8	
Philippines	I	1.1	1.5		1.6	1.5		2.7	3.0		6.0	4.7		1.6	2.2		1.1	1.4		8.7	8.3	12.0	11.6	
	II	0.9	1.1		1.6	1.4		2.5	2.5		3.4	3.9		2.2	2.1		1.4	1.6		7.0	7.6	9.7	10.4	
Thailand	I	..	1.0		..	1.3		..	2.5		..	3.5		..	2.5		..	2.8		..	9.8	..	12.2	..
	II	..	1.4		..	1.5		..	3.1		..	3.4		..	3.5		..	2.7		..	10.5	..	13.6	..

0 = less than 0.1.

.. = not available.

- = nil.

Notes: I = subperiod 1975/76 to 1979/80.

II = subperiod 1980/81 to 1984/85.

T = terminal year figures. Unless indicated otherwise, the terminal year for subperiod I is 1974/75 and for subperiod II, 1984/85.

A = average for the subperiod.

Source: Asian Development Bank, *Financing Public Sector Development Expenditure in Selected Asian Developing Countries* (forthcoming).

where agricultural income is the principal source of GDP, this income is not included in the income-tax base. Rather, there is increasing tax evasion by diverting non-agricultural income to agricultural income. Including the usual deductions and exceptions, the exemption limit for income tax is nearly ten times the per capita income in the South Asian countries. Consequently, less than 1 per cent of the population pays income tax. Although the situation is relatively better in the Southeast Asian countries in regard to the exemption limit, their income tax performance, except for Thailand, is poor.

In many of the countries, tax evasion became widespread because of high marginal tax rates and lax enforcement. The evasion is reported to be particularly high in commercial and professional activities. Also, the complex tax laws and loopholes encourage evasion. In recent years, many of the countries lowered the marginal tax rates considerably to reduce evasion. While the immediate impact of this reduction was generally favorable, the overall increase in revenue has not been as much as expected.

Unlike income tax, corporation tax as a proportion of GDP has shown a steady improvement over the years. Except for Bangladesh and Nepal, it has overtaken income tax as the principal source of direct taxation in the other countries. In Indonesia, corporation tax accounts for nearly 75 per cent of total tax revenue and about 90 per cent of direct taxes because of the importance of oil in the economy. Among the other countries, the contribution of corporation tax ranged from 16 per cent of the total tax revenue in the Philippines in 1984/85 to a negligible proportion in Bangladesh. The small share of corporation tax in total tax reflects the underdevelopment of the industrial sector in most of these countries. Also, the tax base is eroded by liberal concessions and deductions, including tax holidays, accelerated depreciation and generous capital allowances, contributing to the low revenue from corporation tax.

Indirect Taxes. Except for Indonesia, all the countries have depended heavily on indirect taxes, which accounted for about 75 per cent of total tax revenue. Ease of collection as well as invisibility has induced several countries to turn increasingly to indirect taxation to meet growing government expenditures. While the composition varied among the countries, three taxes, namely, customs duties, excise tax and sales tax, provided most of the revenue from indirect taxes (see Table 4). Customs duties are a less important source of revenue in India, Indonesia and Thailand while they are the most important source in Bangladesh, Nepal and Pakistan. The low share of customs duties in total tax revenue in the Southeast Asian countries is a reflection of the declining importance of export taxes and growing diversification of their economies. While revenue from customs duties has increased in India, its share in total tax revenue is still half that in Bangladesh, Nepal and Pakistan, where customs duties accounted for 40 per cent of the total tax revenue. Such heavy reliance on customs duties is not conducive to the stability of government revenues and is a reflection of the low levels of industrial growth in the South Asian countries.

The excise and sales taxes are generally inelastic in the countries included in this discussion. The high rates of taxes encourage underinvoicing or the evasion of taxes. The high growth in revenue from excise and sales taxes in most of the countries has, therefore, resulted from the increase in the rates of taxes and the coverage of more commodities. The attempt to extract large revenues from commodity taxes through ad hoc changes in rates and the tax base has given rise to inequities and distortions. High rates of taxes levied at various stages of production have raised the domestic costs of production, adversely affecting the competitiveness of domestic industries and the growth of industrial production. Also, questions have arisen about the equity of the tax system when most of the revenues are collected through commodity taxes.

The solution to many of the ills of domestic indirect taxes seems to lie in moving towards a value-added tax system. Indonesia adopted this tax system in 1985 under which the rate structure was also greatly simplified by applying two basic rates of 10 and 20 per cent. In 1986 India introduced a scheme of modified value-added tax under which the manufacturer gets complete reimbursement of all excise and import duties paid on inputs used in manufactures. This tax will also remove the cascading effect of indirect taxes and make the incidence of excise duties transparent.

Suggested Tax Reforms⁴

Reform of Direct Taxes. Reviews of the trend of direct taxation and recent initiatives toward better collection in the countries in this discussion suggest that the focus of reforms for direct taxes should be on: (i) widening the tax base; (ii) improving tax administration; (iii) simplifying the tax system; and (iv) more effective taxation of income from agriculture and urban property.

Widening the Tax Base: If the yield of income tax is to be improved, the coverage must be widened. As noted earlier, in most of the countries, the coverage is well below 1 per cent of the population. While it is difficult to specify a target, a substantial increase is both possible and necessary. Lowering the exemption level is the simplest method of increasing the coverage, but, in most of the countries, the limits have been raised on grounds of the inadequate administrative machinery. However, compulsory filing of returns by people with taxable income and a universal system of tax-withholding could improve tax collection.

To widen the coverage of chargeable income, it is necessary to tax incomes on a global basis and remove concessions which are non-functional. Many of the deductions and exemptions in income tax have no functional utility and have

4. The tax reforms discussed here are the major suggestions made in the study referred to earlier (see footnote on page 1).

been continued without an analysis of their relevance and effectiveness. This is also true of many concessions provided to the corporate sector whose benefits are doubtful, but which cost the national treasury large sums of money. It is essential to examine all concessions in direct taxation and redesign them on scientific lines by subjecting them to a thorough cost-benefit test. In general, the effort must be to reduce concessions to the minimum since they often become a potential source of tax avoidance.

Improving Tax Administration: In most of the countries, tax evasion appears to be widespread. In several of them, efforts have been made from time to time to increase tax revenue through special tax drives and declarations of tax amnesties. While some additional tax revenue has been generated, the long-term effect has not been significant. The most important step in dealing with tax evasion is to build an efficient information system for locating new taxpayers and checking returns by matching information from different sources.⁵ A program of computerization of the tax system should be a priority in a program for tax administration reform.

Taxation of the self-employed poses an intractable problem. One way of bringing the self-employed under taxation is to estimate potential income and levy tax on a "presumption basis" based on considerations such as location and size of business premises; this practice has been adopted in France and Francophone countries in Africa. For corporation tax, better enforcement requires stricter scrutiny of private company returns. Also, some integration of corporate with personal income tax is desirable for encouraging the development of capital markets and promoting risk-taking.

Simplifying the Tax System: The number of taxes levied on income and wealth should be kept to a minimum and the rate structure should be simplified. Multiplicity of taxes, exemptions and deductions give rise to inequities and distortions and encourage evasion. Also, tax rates should be moderate if compliance is to be improved. Several countries have recognized the need for these reforms and, in recent years, steps have been taken to simplify the tax structure and moderate tax rates.

Taxation of Agricultural Income and Urban Property: One of the recurring issues in the context of taxation of income and the narrowness of the tax base in developing countries has been the taxation of agricultural income. This is of particular relevance to the agrarian economies of South Asia. As noted earlier, in none of the South Asian countries included in this discussion is agricultural income subject to income tax. On grounds of equity, there is a strong case for taxing agricultural income, especially of the more prosperous farmers.

5. Arvind Virmani, *Tax Reform in Developing Countries: Issues, Policies and Information Gaps*, Discussion Paper, no. DRD 176, Development Research Department (Washington, D.C.: World Bank, June 1985).

At present, farmers are taxed only through a variant of land tax, known as land revenue in South Asia. However, in virtually all the countries, the importance of this tax in total revenue has declined drastically over the past three decades because the tax revenue has not increased with the growth in income from land. On the contrary, exemptions have been provided particularly to small farmers in nearly all the countries. Attempts at introducing a progressive tax on land have also failed. There is, however, an obvious need to increase land tax or, alternatively, to integrate income from agriculture with other incomes for purposes of income tax.

There is some form of tax on urban property in all the countries under consideration. However, while property values in all of them have increased dramatically, there has been insignificant growth in property tax revenue because of infrequent and outdated valuation methods and liberal exemption limits. For instance, in Nepal and Pakistan, an owner-occupied house, irrespective of size and location, is exempt from property tax, thus encouraging the proliferation of large and ostentatious houses in affluent areas. Urban property tax, together with land revenue, constitutes a potential source of higher tax revenue, provided objective norms are established and rigorously applied.

Reforms of Indirect Tax. In most of the countries, the multiplicity of points of levy and indiscriminate taxation over a wide range of inputs and final products have caused the pyramiding of tax and high production costs and distortions in the prices of domestic products. In principle, the commodity tax which creates the least distortion is a retail sales tax on the final consumer. However, in practice, administering such a tax poses problems because in many developing countries records of such transactions are seldom kept and monitoring is beyond the available administrative resources. Sales taxes are therefore realized mostly from the first point of levy, which causes economic inefficiencies and losses.

In recent years, growing attention has been given to removing the distortions caused by indirect taxes without sacrificing revenue. It is increasingly recognized that value-added tax is the best substitute for existing domestic commodity taxes. Simplicity and administrative considerations would favor a uniform and moderate rate of value-added tax on all commodities. However, on social grounds it may be necessary to differentiate between essential and luxury goods. Small-scale industries — which often enjoy tax concessions — should be protected through means other than concessions in value-added tax.

Many of the countries have abolished export duties because of low prices of most commodities in the world market. Export duties in the past have discouraged exports and encouraged production in importing countries. It has often been advocated that the effective protection rate should be equal for all commodities because widely varying rates cause inefficiencies and waste of resources. This is now contested on the grounds that effective protection rates usually do not take into account the opportunity cost of non-tradables, and

distortions in factor prices valued in market prices are not adequately considered. It is therefore argued that industries should be based on the criteria of economic efficiency, and efforts should be made to bring the market prices closer to shadow economic prices. Protective tariffs may not be a suitable instrument to achieve this objective.

The principle that emerges from the above discussion is that tax measures should be designed to encourage domestic production and to correct and reduce market distortions. This principle would suggest that all export duties and import duties on raw materials and intermediates should be abolished, or at least drastically reduced. Imports of final products should be taxed more heavily than raw materials and intermediates.

It is recognized that the above suggestions on tariff structures, if immediately applied, could cause upheavals in industrial production. Hence, reforms should be phased over a time frame. Also, the system should have enough flexibility to cope with the uncertainties of international price movements and trade practices.

Non-Tax Revenues

Non-tax revenues, which include a variety of items, generally account for a small proportion of total government revenue. In most of the countries, non-tax revenues formed between 1 and 2 per cent of GDP (see Table 3). In India non-tax revenues formed substantially below 1 per cent of GDP and in Pakistan nearly 4 per cent. As a proportion of total revenue, the ratio varied between 1 per cent for India and 2 per cent for Pakistan. Except for India, the share was higher in the South Asian countries than in the Southeast Asian countries. And except for the Philippines, non-tax revenues have generally shown a rising trend in relation to GDP; in the Philippines a severe downturn in the economy has affected both tax and non-tax revenues in recent years.

The principal sources of non-tax revenues are fees for various services, fines and forfeitures, property income, documentary charges and interest and dividends from government enterprises. While these sources cannot be expected to provide substantial revenues to meet the growing needs of the public sector, there is considerable potential for increasing revenues from several of these sources.

Dividends from public sector enterprises form the single most important source of non-tax revenue, accounting for between one third and one half of the total non-tax revenue. Considering the massive investment made by governments in state enterprises, they should be a far more substantial source of revenue. However, most of these enterprises, instead of generating revenues, are a drain on the national treasury. With better management and appropriate prices, these enterprises should be able to contribute more resources to the budget through interest and dividend payments.

Fees and charges for several social and public services, initially fixed at low levels, are seldom increased in line with rising costs. There is an urgent need to review existing charges in relation to costs. In education and health, a sizable portion of the costs could be recovered if concessional rates are limited to the poorer sections of society; there is little justification in subsidizing the well-to-do sections of society.

Irrigation and transport services are generally operated by government departments, which account for a major part of government expenditure. In some countries, no charges are levied on irrigation water, while in others, irrigation charges cover only a small portion of the operation and maintenance of existing facilities. This has not only greatly increased the burden on the budget but has also contributed to inefficient and wasteful use of water. In transport, road users' charges, especially for heavy-duty vehicles, are very low in most of the countries. Also, road transport services operated by the government are seldom profitable. There appears to be little justification for the participation of the public sector in road transport services.

Government Expenditures

Growth in Expenditure

During the past decade, while government revenues increased at a rapid rate, expenditures increased at an even faster rate. As a result, the overall deficit has greatly increased in all the countries, both in absolute terms and as a percentage of GDP. This has necessitated large-scale domestic and foreign borrowing. In many of the countries, current expenditures exceed current revenues by a wide margin, particularly in the South Asian countries, while in the Southeast Asian countries current account surpluses are being steadily eroded. Thus, in some countries, a part of current expenditures is even being financed from borrowings. Moreover, while the costs of domestic and foreign borrowings have been high, the returns from investments financed from borrowings have been low or negligible. Unless urgent remedial measures are taken, the budgetary position in many of these countries would become increasingly strained.

In 1975 government expenditures — current and capital — exceeded revenues in all the countries. They had to borrow in the domestic and external markets to finance part of their investment expenditures.⁶ Deficit financing ranged between 1.3 per cent of GDP in the Philippines and 12.5 per cent in Pakistan. Except for India, the governments in all the South Asian countries were by 1975 heavily dependent on domestic and external borrowing for financing their investment requirements. By 1984/85 the deficit as a percentage of GDP

6. Indonesia has not undertaken domestic borrowing to avoid a repetition of high inflation experienced in the 1960s caused by large-scale domestic borrowing.

was higher in all the countries, except Pakistan. India and Indonesia, which traditionally had low budget deficits, experienced sharp increases in their deficit in recent years. Although Pakistan's deficit was slightly lower in 1984/85 compared with 1974/75, it was still the highest while that of the Philippines was the lowest. In relation to total government investment, deficit financing was highest in Nepal and Pakistan where it exceeded total investment.⁷ The Philippines had the lowest deficit financing in 1984/85, financing about 35-40 per cent of total government investment.

Except in the Philippines, current expenditures increased at a much faster rate than capital expenditures, and current expenditures increased far more rapidly than government revenues (see Table 5). As a result, current expenditures outstripped current revenues in many countries by 1984/85 (see Table 3). In 1974/75 only Pakistan showed a negative budgetary saving. India and Nepal also had a negative budgetary saving by 1984/85, while in Thailand government reserves barely covered current expenditure. In Bangladesh the apparent budgetary saving was due to the inclusion of a part of current expenditure in development expenditure which has been used as a proxy for investment expenditure. If allowance is made for that current expenditure, the budgetary saving would likely be negative. Indonesia's budgetary saving has declined considerably in recent years largely due to a fall in revenues resulting from lower oil prices, the principal source of government revenue. The Philippines was the only country in which the budgetary saving was higher in the first half of the 1980s than in the latter half of the 1970s. This was, however, due to a drastic cut in current expenditures following the agreement with the International Monetary Fund which has affected some essential expenditure required for the maintenance of assets and the provision of public services.

Within current expenditure, government direct consumption expenditure generally declined while "transfers" increased rapidly. Current transfers accounted for as much as 8 per cent of GDP in Pakistan and 6 per cent in India and Indonesia. Interest payment on loans has been the most important component of current transfers, and its share in total current expenditure has sharply increased. Interest payments in some countries increased by 50 per cent per year, while the share of consumption expenditure declined. The maintenance of existing assets received a smaller share of the total budget.

Among the functional categories, the share of defense in the total expenditure has generally declined over the years. Expenditure in social services, including education and health, has greatly increased in most of the countries (see Table 6). Except for Indonesia and Pakistan, social services accounted for 20-30 per cent of the total current expenditure. In Indonesia expenditure on social services has been only about 8 per cent of current expenditure. In Pakistan social services accounted for 14 per cent of the total current expenditure while defense

7. In Bangladesh and Pakistan, the ratios are calculated in relation to development expenditure which includes investment and a part of current expenditure. Capital expenditure is overstated while deficit financing for investment is understated.

Table 5: Growth Rates of Selected Budget Variables, 1975-1984
(Percentage per year)

Country	Gross Domestic Product	Tax Revenue	Non-Tax Revenue	Total Revenue	Current Expenditure	Capital Expenditure	Total Expenditure
Bangladesh	17.5	16.7	17.0	16.8	19.7	16.8	18.0
India	11.2	14.0	17.7	14.4	16.2	13.5	15.5
Indonesia	22.8	24.0	24.3	24.0	25.5	24.4	25.0
Nepal	9.7	14.0	16.5	14.5	24.0	14.6	19.1
Pakistan	15.0	16.3	16.9	16.5	17.4	13.2	15.9
Philippines	17.9	16.0	9.6	15.0	14.2	21.0	15.8
Thailand	18.1	14.4	12.3	14.2	18.0	15.4	17.5

Source: Asian Development Bank, *Financing Public Sector Development Expenditure in Selected Asian Developing Countries* (forthcoming).

Table 6: Share of Functional Categories in Total Government Current Expenditure
(Percentages)

Country		General Services		Defense		Social Services		Economic Services		Subsidies ^a		Interest ^a	
		T	A	T	A	T	A	T	A	T	A	T	A
Bangladesh	I	24.1	24.2	21.4	20.8	20.4	21.1	9.8	7.6	17.3	13.5	7.0	6.7
	II	19.0	22.6	19.4	21.0	32.9	26.0	9.5	10.0	8.1	10.6	11.1	9.8
India	I	18.5	17.3	27.6	24.7	30.5	31.3	21.8	24.7	13.2	13.1	3.8	5.2
	II	15.8	16.2	22.0	22.4	32.4	32.3	28.8	27.8	13.7	13.8	11.7	9.4
Indonesia	I	26.7	41.5	36.6	31.1	9.8	8.6	5.0	4.7	14.4	14.9	2.6	6.7
	II ^b	52.9	54.3	23.1	24.9	9.1	8.0	13.7	5.0	22.1	25.4	15.8	10.7
Nepal	I	..	..	..	..	..	..	..	..	..	..	..	..
	II	26.3	24.5	10.4	11.1	29.0	30.6	22.7	25.9	1.3	2.2	10.4	7.1
Pakistan	I	11.7	11.7	36.3	33.6	10.5	12.8	3.9	6.4	8.8	8.0	9.8	11.6
	II	9.4	10.8	31.2	33.8	15.1	14.3	5.3	6.8	5.4	5.2	18.0	16.1
Philippines	I	21.2	22.7	25.5	22.8	27.0	26.5	26.3	27.6	3.3 ^c	2.4 ^c	5.9	5.8
	II	31.5	32.9	13.6	15.0	30.4	29.5	24.4	23.5	1.8	2.8	10.3	14.0
Thailand	I	12.1	11.4	22.2	26.7	34.5	32.9	14.4	12.2	4.9	5.4	10.6	9.4
	II	10.0	10.0	25.0	25.5	31.1	30.5	12.3	12.5	6.9	5.2	17.5	14.0

.. = not available.

Notes: I = subperiod 1975/76 to 1979/80.

II = subperiod 1980/81 to 1984/85.

T = terminal year figures. Unless indicated otherwise, the terminal year for subperiod I is 1974/75 and for subperiod II, 1984/85.

A = average for the subperiod.

^a These items have been estimated independently and have been included in other categories, except for Bangladesh and Pakistan.^b Terminal year is 1983/84.^c Terminal year is 1978; average is for 1978 and 1979.Sources: Asian Development Bank, *Financing Public Sector Development Expenditure in Selected Asian Developing Countries* (forthcoming); and International Monetary Fund, *Government Finance Statistics Yearbook* (Washington, D.C., various issues).

for about 34 per cent. Expenditure on economic services, which generally has been a small proportion of total expenditure, stagnated or declined in most of the countries. Within this category, agriculture and transport predominate, though the expenditure still appears inadequate to maintain existing facilities.

The share of capital expenditure in total expenditure has tended to decline in most of the countries. However, the expenditure pattern varied considerably among the countries. In Nepal, Philippines and Thailand a major part of the outlay has been in direct capital expenditures; in India and Pakistan a large part was in loans to, or increased shares in, public sector enterprises. In the Philippines a large part of investment has been through equity contributions but much was used to offset losses rather than to create new assets. The economic sectors accounted for the largest share of investment. Although the proportion varied greatly among the countries, the main recipients of investment were the agriculture, industry, transport and power sectors. Except for Pakistan, where the share was lower, investment in the social sectors accounted for 10 to 20 per cent of total investment.

There are four aspects of the current and capital expenditure patterns of the countries that merit comment. First, government bureaucracies have continued to absorb a large proportion of the total expenditure while investment projects continued to face a lack of funds and shortage of qualified staff. Second, while governments and foreign aid agencies gave adequate attention to new projects, the maintenance of existing assets was given relatively lower priority, which is a major reason for the poor performance of existing assets. Third, governments have rather readily resorted to borrowing to finance investment and even current expenditure. Fourth, in several countries, a substantial part of the resources has been used for financing large losses of public sector enterprises rather than for investment in new assets.

Improving the Productivity of Expenditure

Analysis of government budgets indicates that current expenditures have increased beyond levels that can be supported by revenues. This has led to increasing borrowing from domestic and external sources to finance investment and, in some cases, current expenditure. In several countries, excessive borrowing has led even to borrowing to make interest payments. It has been argued that borrowing can become unsustainable even from domestic sources.⁸ This is borne out by the increasing burden of interest payments on the budget.

The financing of debt need not be a burden if public expenditures help to create capacities for higher production, and the tax system is efficient to ensure revenues commensurate with the rise in income and output. However, if

8. Luigi Spaventa, *The Growth of Public Debt: Sustainability, Fiscal Rules and Monetary Rules*, Working Paper, WP/86/8 (International Monetary Fund, 1986).

public expenditures yield no commensurate returns, either as surpluses of public sector enterprises or as government revenues, then budgetary imbalances would be aggravated. The solution lies in either restraining the growth of expenditures or designing expenditures in such a way that they lead to increases in revenue commensurate with public investment.

In all the countries, there is scope for improving the yield of taxes. However, given the administrative constraints and the social and political environment, it would be unrealistic to expect any dramatic improvement in the revenue-yielding capacity of the tax system. It is therefore important to seek ways of reducing expenditure or of enhancing its productivity. A review of public expenditures in the countries suggests several possibilities of restraining wasteful government expenditures and of achieving better results from expenditures incurred. The remedy, it should be stressed, does not lie in an indiscriminate reduction of public expenditure as this may impose a heavy social cost by the impairment of productive capacity and the reduction of public welfare. The aim should be to eliminate all those expenditures that provide little benefit to society or do so at high costs.

Reform of government expenditures may be initiated with an annual scrutiny of ongoing expenditure programs. In most of the countries, there is considerable scope for improving the productivity of government through rationalization of administrative and staffing resources. Also, there is a need to review expenditures in the form of transfers, grants and subsidies. Transfers of government funds often provide an easy avenue for political patronage, while subsidies are a major burden on the budget. These expenditures need to be identified, quantified and subjected to rigorous cost-benefit tests. In some countries, public sector enterprises received considerable amounts of government funds. However, the monitoring of these expenditures remains weak and the returns on investments in these enterprises warrant scrutiny.

Saving Performance of Public Sector Enterprises

In the countries included in this article, the saving performance of public sector enterprises has been relatively better than that of government administration. However, an analysis of their saving performance shows that, apart from some of the major sectors such as oil, their contribution to public saving was modest in relation to the large investments made in these enterprises. Moreover, the poor saving by government administration has been partly an outcome of the massive financing provided by the government to public sector enterprises at low rates of interest while interest at much higher rates has been paid on the government's own borrowings. An important source of imbalance in government budgets in most of the countries has been the inadequate return from investments made by governments in these enterprises and government loans and subsidies needed to meet their losses.

Importance of Public Enterprises

Notwithstanding wide divergences in their ideological orientation and declared public policy, the countries have large numbers of public sector enterprises (see Table 7).⁹ Over the past decade, Bangladesh, Nepal and Pakistan divested and denationalized a number of enterprises. The Philippines, which experienced a large increase in the number of public enterprises, started a program of privatization in 1986.

In terms of their share in total investment, public sector enterprises play an important role in virtually all the countries, particularly in the South Asian countries, although there was a decline in the 1980s (see Table 7). As a proportion of GDP, the role of these enterprises is relatively small, except in Indonesia because of the dominance of the oil sector.

The structure of the public enterprise sector is remarkably similar among the countries. It has a large participation in many key economic activities in almost all the countries and virtually a monopoly in some of them. In general, the share of public sector enterprises is large in finance, insurance, energy and public utilities. They also play an important role in mining and heavy industries and, in some countries, engage in consumer goods industries. In most of the countries, particularly in South Asia, these enterprises make a significant contribution to employment.

As indicated earlier, these enterprises depend heavily on the government budget for financing their investment. In some countries, e.g., Pakistan, the shortfalls in saving of public sector enterprises relative to their needs have decreased, but in most of them the gap remains large. In the Philippines, for example, the proportion of investment financed out of the resources of the enterprises decreased from 36 per cent in 1975 to 30 per cent in 1984. In Nepal the aggregate saving of the enterprises has been erratic but mostly negative. The performance of public sector enterprises in Thailand improved in the first half of the 1980s, but their net contribution to the government out of their profits declined sharply. In Bangladesh a study of 13 major non-financial public sector enterprises shows that their net savings, after taxes and dividends, were negative in 1984/85.

The main cause of the poor saving performance of the enterprises is their poor profitability. Although, in several countries, the financial performance of the enterprises is better than generally assumed, and there have been perceptible improvements in some countries in recent years, the rate of return of the enterprises in most countries is generally low and does not cover the cost of borrowing in the market. It should be recognized, however, that profitability varies widely across sectors and enterprises. While "sick" enterprises bring down the overall profitability, some show good profitability and make up for the deficiency of others.

9. For the purpose of this discussion, public sector enterprises include government departmental enterprises, statutory corporations or joint ventures in which the government or a public sector institution has a controlling share.

Table 7: Number of Public Sector Enterprises and Shares in Gross Domestic Product, Gross Domestic Saving and Gross Domestic Capital Formation

Country	Number of Enterprises 1984/85	Share in Gross Domestic Product (%)		Share in Gross Domestic Saving (%)		Share in Gross Domestic Capital Formation (%)	
		1974/75	1984/85	1975/75	1984/85	1974/75	1984/85
Bangladesh	280	..	3.2 ^a	..	23.0 ^a	..	20.0 ^a
India	651	11.3	15.7	9.3	14.6	43.8	37.3
Indonesia	215	21.0 ^b	30.0 ^b	..	..	..	..
Nepal	55	2.0	2.5	82.4	4.0	57.9	32.7
Pakistan	167	..	..	13.2	61.5	47.2	33.2
Philippines	245	1.9	1.9	3.5	2.0	14.5	31.1
Thailand	68	..	..	4.2	0.5	5.7	14.7

.. = not available.

^a Relates largely to non-financial public sector enterprises.^b Refers to sales of public sector enterprises as percentage of GDP.Source: Asian Development Bank, *Financing Public Sector Development Expenditure in Selected Asian Developing Countries* (forthcoming).

In Bangladesh the rate of return on investment for 13 major enterprises was 8.6 per cent, but with large variations among the enterprises. However, their profits were computed on the basis of historical costs of assets. If current replacement costs are taken into account, profitability would be substantially lower. Although financial and insurance companies showed large surpluses, adequate account was not taken of bad and doubtful debts. Among the major enterprises, the net operating surplus was negative for the railways and Post Office.

In India the profitability of the enterprises in terms of the return on investment (rate of return on capital employed) averaged 12.8 per cent during 1984/85, a marked improvement over 1975/76 when it was 7.6 per cent (see Table 8). However, over 50 per cent of the total gross profits was accounted for by the petroleum sector, which if excluded would result in a rate of return of 5.5 per cent for manufacturing enterprises and of 7.7 per cent for all operating enterprises. The rate of return of enterprises in minerals and metals was 3 per cent, while steel showed a negative return. The performance of enterprises owned by state governments was generally poor; most of them incurred heavy

Table 8: Profitability of Public Sector Enterprises

Country	Profit after Tax/ Net Worth		Gross Profit/Capital Employed	
	1974/75	1984/85	1974/75	1984/85
Bangladesh	..	..	..	8.6 ^a
India	..	..	7.6 ^b	12.8 ^b
Indonesia	..	..	4.0 ^c	2.7 ^c
Nepal	-2.3	0.8	6.3	14.4
Pakistan	6.0	6.0	12.0	13.0
Philippines	7.0	-1.0	29.0	20.0
Thailand	6.0	2.8	..	..

.. = not available.

a Relates largely to non-financial public sector enterprises for the year 1986/87.

b Refers to central government enterprises only.

c Refers to gross profit as percentage of total assets.

Source: Asian Development Bank, *Financing Public Sector Development Expenditure in Selected Asian Developing Countries* (forthcoming).

losses which were met with loans from the state government. In 1985/86 state electricity undertakings involving massive investments generated a rate of return of less than 4 per cent. The performance of road transport enterprises was even worse, while receipts from irrigation — a major area of investment — covered less than one fifth of the working expenses in 1985/86.

In Indonesia, despite better utilization of assets, the profits to assets ratio decreased from 4 per cent in 1974 to 2.7 per cent in 1985. The performance of individual sectors and enterprises varied considerably. The return on assets was 32 per cent for Pertamina (the oil corporation). The large profits of Pertamina were partly offset by heavy losses of the giant Krakatau Steel Plant. The performance of power utilities was also poor, while banks earned good returns on equity.

In Nepal the profitability ratios remained low. The rate of return on equity, defined as the ratio of net profits to net worth, was negative in six years during 1974 to 1985. The trade sector incurred massive losses from 1975/76 to 1978/79 but showed some improvement thereafter though profitability in trade remained unsatisfactory. The financial sector showed positive results, but the rates of return remained low and provisions made for bad debts were grossly inadequate. A large part of the investment in trade and public utilities remained unproductive.

In Pakistan the financial sector showed very high rates of return on equity. However, the actual returns may well be lower if bad debt provisions for the "non-performing" loan portfolio are taken into account. In the manufacturing sector heavy losses incurred by Pakistan Steel wiped out the profits of others in the sector. Excluding Pakistan Steel, the manufacturing sector earned profits, and the performance showed further improvement in 1976-1985. There were also improvements in transportation and communications, electricity, oil and gas. Trade and commerce, mining, quarrying and construction yielded low returns, while enterprises in agriculture had persistent losses.

In the Philippines the profitability of the enterprises suffered a severe setback when the rate of return on equity fell from 6 per cent in 1975 to -1 per cent in 1984. The financial institutions recorded the highest rates of return on net worth until 1984 when they registered losses. Enterprises in the infrastructure, public utility and social sectors had negative rates of return on equity. Agricultural, trading, industrial and area development enterprises recorded satisfactory performance, with those in agriculture and trading earning rates of return on investment above the loan rate in some years.

In Thailand the public sector enterprises on the whole generated net profits, but their profitability showed a declining trend. The ratio of net profit to net worth declined from 6 per cent in 1974 to about 3 per cent in 1983. A few enterprises, particularly the railways and other transport organizations, accounted for over three fourths of the aggregate losses of the enterprises during 1977-1979. In recent years, utilities such as water supply undertakings accounted for most of the losses. Profits have been concentrated in a few large enterprises; the first

five enterprises accounted for 57 per cent of the aggregate profits in 1977-1979 and almost two thirds in 1980-1982. The contribution of the enterprises to the government budget also seems to have declined despite their reasonable profitability.

To sum up, public sector enterprises have, on the whole, not succeeded in mobilizing resources for their growth, and they constitute a drain on the government budget in most of the countries. However, an unqualified adverse judgement would not be appropriate as certain sectors such as finance seem to have generally performed well although published accounts are often misleading because of inadequate provision of bad debts. Also, within each sector, the performance of individual enterprises varied greatly, and sectoral performance was often marred by the adverse results of one or two large enterprises. It is, therefore, fair to conclude that a close examination of all enterprises is called for and a doctrinaire or ideological approach to the formulation of future policy on public sector enterprises should be avoided.

Factors Affecting the Performance of Public Sector Enterprises

Several factors have been identified in the literature to have been responsible for the poor saving performance of public sector enterprises in developing countries.¹⁰ Some of them are perhaps inherent in public ownership of business enterprises while others stem mainly from managerial weakness and failure to take basic measures. This is well borne out by experience in the countries included in this article.¹¹

Many of the problems which afflict public sector enterprises have their origin in the multiplicity of objectives and a lack of clarity about the rationale for public ownership. While the objectives are sometimes articulated in policy statements issued from time to time, these are numerous and often conflicting. No attempt is made to assign relative priority or translate them into quantifiable performance criteria. Even when the goals have been specified, the intervention of the public sector in many specific cases is difficult to rationalize in terms of the stated policy objectives. In several instances, public ownership has come about by accident or default of the private sector. In the Philippines, for example, while the Five-Year Plan (1978-1982) limited the areas for the operation of public sector enterprises to those which were "capital-intensive, pioneering and vital to national interests", they were interpreted to embrace any activity. Similarly in Nepal, these enterprises owe their origin not so much to any "well reasoned economic philosophy" as to ad hoc decisions in pursuance of the government's obligations under foreign aid programs. In manufacturing, such enterprises were established mainly because funds were available under bilateral assistance. In

10. See, for example, Leroy P. Jones, ed., *Public Enterprises in Less Developed Countries* (Cambridge: Cambridge University Press, 1982).

11. This discussion is based on the findings of the study referred to earlier (see footnote on page 1).

trade, the advent of public sector enterprises can be traced to the desire to implement subsidy programs or to set up official channels for the import and distribution of commodities provided by some bilateral donors to meet the local cost of projects financed by them.

The lack of clarity about the role and rationale of public sector enterprises has resulted in a lack of direction and absence of any operational criteria for their performance evaluation. The conclusion, "having a plethora of objectives can be equivalent to having no objective, and management is all too often left free to pursue its own interests or a constantly shifting, incoherent mix", is strengthened by the experience of the countries covered in this discussion.¹² The absence of a single, well-defined measurable goal affects accountability and thereby motivation. The absence of market pressure, e.g., where public sector enterprises have a monopoly position, also contributes to poor performance by weakening the motivation for efficiency.

The management of these enterprises also suffers from a lack of adequate institutional arrangements for monitoring operations and enforcing the relevant efficiency norms for judging performance. In several of the countries, there is no control point for evaluating the performance of government corporations, nor any system of rewards and penalties for successes or failures in reaching targets. A common cause of weak management is the diffusion of controlling authority. Control is often exercised by numerous authorities, acting independently of each other and each taking a partial view of the operations. Another common source of weakness is a lack of professionalism among key personnel. Appointments to the board of directors or senior positions are often made under political considerations and patronage rather than professional competence. There is thus little incentive for good work, especially when the job security of senior executives depends on political obligations.

The low productivity of public sector enterprises is attributable, in many cases, to deficiencies in investment planning. Investments are often undertaken without adequate study of their costs and benefits. Sometimes, costs are underestimated to obtain approval and, as a result, implementation of projects is halted for want of funds resulting in cost overruns. The deficiencies in investment planning arise mainly from institutional factors such as the absence of a well-organized planning unit; too little attention to project design, choice of technology and financial viability; and bureaucratic delays in the timely release of funds.

The profitability of public sector enterprises is generally constrained by pricing policies. Since the social objective of providing essential goods and services at low prices is a major aim of state intervention, prices of the products of these enterprises are often fixed below cost. Underpricing leads to underinvestment in important areas and to distortions and inefficiencies in

12. Leroy P. Jones, *op. cit.*

resource allocation. The rationale for low prices is often based on equity considerations, but most benefits accrue to the better-off sections of society. In general, the prices of products of public sector enterprises should be determined on criteria of economic efficiency.

Privatization

The privatization of public sector enterprises has featured prominently in recent discussions on the role and operations of these enterprises. In several of the countries covered in this article, steps have been taken toward divestiture and denationalization, while in others measures in that direction are being considered. The experience shows that while divestiture may be eminently justified in certain instances, in practice, expectations are not always realized after denationalization.

It has been argued that privatization, broadly defined, does not necessarily mean a divestiture of state ownership but embraces a range of policies designed to promote competition by: (i) allowing the entry of the private sector into areas long monopolized by the public sector; (ii) financing public sector enterprises through the capital market and inviting participatory funds from the private sector; (iii) contracting out of management; and (iv) transferring ownership to the private sector.

The need for privatization, in the sense of reducing the sphere of activity of the public sector, raises some fundamental questions of public policy such as the optimal allocation of resources between the public sector and private sector and the optimal extent of ownership of productive assets by these sectors. It also raises the question whether uniform norms can be applied for judging the performance of public sector enterprises and private sector corporations.

The experience suggests that there is a need and scope for greater competition in the operations of public sector enterprises. However, the considerations which led to the establishment of these enterprises remain valid, e.g., national security, the development of core sectors, unavoidable monopolies in some activities and operations that preclude the private sector because of large investments required or risks involved. Privatization, therefore, must distinguish between activities in which the public sector may continue but in a competitive environment and those which should be exclusively in the private sector, e.g., trade, tourism and the manufacture of consumer goods.

By these criteria, it should be possible to limit the area of operations of public sector enterprises and focus more on improving their efficiency. Privatization of ownership and control of enterprises which need not be in the public sector can be achieved by contracting out, divestiture of shares, or outright sale under liquidation. The relative merit of these alternatives would depend on the situation in the country concerned and on the nature of the enterprises and the problems facing them.

The contracting out of management of an enterprise by government has been advocated as a cost-effective way of delivering goods and services while retaining ownership of the assets. Fears about private contractors being unable to maintain supplies could, it is argued, be allayed by stipulating suitable conditions in the contracts. However, experience in the countries considered has been limited and rather uneven. Also, privatization of ownership and control has not met with much success. Privatization raises a dilemma: loss-making enterprises may not evoke much private interest while privatization of the profitable ones may be politically embarrassing and may not help to reduce the burden on the budget. A case-by-case approach would seem to be the most prudent privatization policy.¹³

Improving the Performance of Public Sector Enterprises

Despite efforts toward privatization, public sector enterprises continue to play a large role in developing countries. Undoubtedly, there is a need for a review of the scope of the public sector and the divestiture of enterprises for which there is no strong rationale for public ownership or management. However, it is unlikely that the role of public sector enterprises can be substantially reduced. Greater attention should therefore be paid to finding ways of improving the efficiency and performance of these enterprises. It is considered that the following suggestions will help in this task:¹⁴

- The role of public sector enterprises should be clearly defined and their continuance should be examined in the light of that role.
- Public sector enterprises should be given full autonomy in the management of their affairs within certain broad guidelines.
- Strategic corporate planning should be undertaken for each enterprise.
- The managers of enterprises should be held accountable for the targets set.
- A single organization should be made responsible for monitoring the performance of each enterprise.
- Criteria for performance evaluation should be based on the characteristics of each sector. Thus, for financial institutions, evaluation of the quality of their loan portfolio is essential to determine their soundness.

13. Asian Development Bank, *Privatization Policies, Methods and Procedures* (Manila, 1985).

14. These suggestions emerged from the country studies referred to earlier (see footnote on page 1).

- Members of the board of directors of the enterprises should be appointed on the basis of their professional expertise.
- Pricing policies should be determined by the enterprises themselves, except where wider social concerns are important.
- Subsidization through underpricing of the products of enterprises should be avoided.
- Enterprises which are inherently inefficient and incur continuous losses should be closed down.
- Adequate attention should be given to research and development and to training.
- The enterprises should operate in a competitive environment. This could be achieved by permitting the entry of private sector enterprises.

Conclusions and Implications for the Future

The discussion in this article indicates that in most of the countries considered, the gap between saving and investment widened considerably since 1975. This was entirely due to the public sector where government revenues increased at a much slower rate than expenditures. In several countries, current revenues exceeded current expenditures, while in others there has been a steady decline in budgetary savings. This situation has been aggravated by public sector enterprises, which absorbed a very large proportion of total investment but did not generate adequate profits. Many incurred heavy losses and have been a drain on the budget.

Instead of taking measures to increase revenues or limit expenditures within available resources, the countries have resorted to heavy domestic and external borrowing to meet growing expenditures. The relative proportion of domestic and external borrowing has varied among the countries. In the light of their access to foreign funds and perceptions of future economic outlook, some countries have relied more on external borrowing while others on domestic borrowing to meet public sector budget deficits. For example, India has relied mostly on domestic borrowing and Indonesia has financed its deficits entirely from external borrowing. Pakistan's reliance on domestic borrowing increased steadily during 1975-1985, while the Philippines and Thailand increased their dependence on external borrowing (see Table 9).

The public debt has increased in all the countries because of the heavy dependence on borrowing to finance government expenditure. As a percentage of GDP, the debt has increased at a high rate in Bangladesh, Nepal, Philippines

and Thailand. In Pakistan the debt remained at a high level. In India the increase has been relatively low. Indonesia benefited greatly from the increase in oil income and has the lowest debt, mostly from external borrowing.

It is difficult to measure the impact of domestic borrowing by governments on the availability of resources for private investment because such investment is influenced by other government policies and the general investment climate. Also, unlike in developed countries where crowding out takes place through increases in the interest rate, in developing countries the impact is largely through a credit squeeze on the private sector, since interest rates are administered by the government. However, there have been examples of both types of tendencies in the countries considered. In the Philippines and Indonesia bank interest

Table 9: **Structure of Public Debt**
(Percentage of GDP)

Country		Internal Debt		External Debt		Total Debt	
		T	A	T	A	T	A
Bangladesh	I	..	..	15.0	28.0	..	..
	II	..	..	43.0	39.0	..	..
India	I	40.2	43.9	11.3	11.1	51.5	55.0
	II	53.3	51.7	8.8	9.3	62.1	61.0
Indonesia	I	..	..	26.0	24.9	..	..
	II	..	..	38.0	24.7	..	..
Nepal	I	3.5	5.3	2.7	5.0	6.3	10.2
	II	18.4	11.9	22.1	14.4	40.5	26.2
Pakistan	I	19.2	22.4	44.7	40.7	63.9	63.2
	II	29.9	30.2	33.6	33.4	63.5	63.6
Philippines	I	10.8	11.1	6.9	10.6	17.8	21.7
	II	13.9	12.4	33.5	21.4	47.4	33.9
Thailand	I	14.0	15.0	4.0	7.0	19.0	22.0
	II	22.0	18.0	20.0	16.0	42.0	35.0

.. = not available.

Notes: I = subperiod 1975/76 to 1979/80.

II = subperiod 1980/81 to 1984/85.

T = terminal year figures. Unless indicated otherwise, the terminal year for subperiod I is 1974/75 and for subperiod II, 1984/85.

A = average for the subperiod.

Source: Asian Development Bank, *Financing Public Sector Development Expenditure in Selected Asian Developing Countries* (forthcoming).

rates were raised which directly affected investment by the private sector. In India and Pakistan a credit squeeze has taken place through policies prescribed by the government. Also, these governments offered high interest rates and fiscal concessions to households to attract savings which directly affected bank deposits and credit to the private sector.

Although the level of external debt in most of the countries is low by international comparison, the debt-service burdens have reached critical levels, especially in the Southeast Asian countries and Pakistan. This is mainly due to the high interest payments burden of the rapidly growing debt and the large proportion of short-maturity commercial loans in the debt portfolio of some countries. The situation has been aggravated by a high share in outstanding debt of borrowings in currencies which have greatly appreciated in recent years. As a result, some countries are becoming increasingly cautious and selective in their external borrowing, even at the cost of reducing public sector investment.

These developments have narrowed the options available to governments for financing their future investments. The interest burden on debt is mounting; the growth being 40 to 50 per cent per year in India, Indonesia and Pakistan. In recent years, about 40 per cent of the annual borrowing and 60 per cent of the borrowing through national saving schemes in Pakistan was absorbed only by interest payments. As indicated earlier, a growing proportion of total revenue receipts has to be set aside for interest payments in all the countries.

There is a growing realization that borrowing, domestic and external, is not a durable source for financing public sector expenditure. Some countries, e.g., Indonesia and the Philippines, have curtailed their investment in recent years rather than increase borrowing. Other countries may well have to do so, unless efforts are made to increase budgetary savings or increase the profitability and efficiency of their public sector enterprises.

As discussed earlier, the tax rates levied on income and commodities are already quite high in most of the countries, and the scope for raising tax rates is rather limited. In fact, there is a need to lower the rates and simplify the tax structure. There are, however, two areas of potential increase in tax revenues. First, in several countries, agricultural incomes are exempt from income tax irrespective of the level of income. There is a strong case for including this income in total income for assessing tax payments. In the past, sporadic efforts were made to include agricultural income within taxable income, but these were not successful due to political constraints. Second, a potentially important source of additional revenue is tax on property, considering the rapid growth in urban construction and escalating urban rents. Here, the problem is not that tax rates are low, but that there are exceptionally high exemption limits and that valuation of property for purposes of taxation is not properly conducted. The main scope for increasing revenues, however, lies in reducing evasion, which is rampant in several countries, in improving tax administration and in removing the plethora of exemptions which are of dubious value but are a drain on the national treasury.

These measures should provide some additional revenues, but the main scope for increasing government saving for investment lies in substantially reducing the large growth in government expenditure experienced by all the countries. A thorough review of all expenditure categories is necessary to remove those that are of marginal importance or of dubious value. In particular, the growth of the bureaucracy must be halted and staff deployed for more productive activities. Also, when resources are scarce, it is essential to make every effort to recover the cost of providing government services. While there is a good case for providing free education and health facilities for the poor, the better-off sections of society must bear the full cost of these services. This also applies to water charges for irrigation and road charges on vehicles. More important, subsidies that impose a heavy burden on the budget should be reduced.

While the above-mentioned measures should increase government savings from the budget for investment, the greatest potential for increasing government resources for future development lies in public sector enterprises. As indicated earlier, many of the enterprises are performing rather poorly, generating limited returns in relation to the investment and even incurring heavy losses. Also, the scope for privatization of enterprises should be examined. But the greatest need is to explore all possibilities for improving the efficiency and profitability of public sector enterprises. This is possible only if the enterprises have clearly defined objectives and performance criteria, are free to define their corporate plans and determine their pricing policies and are run by professional managers with rewards and penalties for success and failure of the enterprises. Without a major improvement in profitability, governments will continue to face resource constraints in financing future investment.

The increase in government resources from the measures outlined here will take time to be realized. Therefore, it is important to assign priorities to investment programs. High priority should be given to those activities that are "public goods" and that cannot be financed by the private sector. These include large investments in agriculture, irrigation and social and economic infrastructure. Governments will have to avoid new investment in activities which can be better served by the private sector. Thus, shortage of public sector resources provides an added significance to the future importance of private sector investment in Asian developing countries. Bilateral and multilateral aid institutions will have to take this into account in designing their future policies and modalities of development assistance.

The Public Sector in the Market Economies of Developing Asia

Vito Tanzi*

Discussions on the role of the public sector tend to be on what the public sector ought to do on the basis of assumptions about the existence of public goods, the existence of externalities in the economy, the need to create infrastructure and the need to redistribute income. These discussions are inevitably influenced by ideological considerations and by an implicit concept of the public sector as an all-knowing entity that makes few if any mistakes and that always aims at maximizing the "general" welfare. These "normative" discussions that fill the pages of public finance textbooks are useful for providing a framework for reference. However, more attention must be directed toward the "positive" role of the public sector, recognizing that it is run by individuals who have biases and who make their share of mistakes.

Thus, it may be more useful in this article to reverse the normal question by asking about the costs associated with the positive role of the public sector and by asking what the public sector should *not* have done rather than what it should have done. The scope of this article is limited to nine countries: Bangladesh, India, Indonesia, Republic of Korea, Malaysia, Pakistan, Philippines, Sri Lanka and Thailand.

A Sketch of a Positive Theory of Public Sector Intervention

The market economies of Asia have assembled in recent decades an economic record that, in many ways, is the envy of policymakers in other regions of the so-called developing world. Whether the performance of these economies is assessed by the rate of growth, by the rate of inflation, by the growth of their exports, or by the fact that by and large most of these economies have managed to avoid the economic crises that have afflicted other regions, the basic conclusion must be that the performance of these countries, taken as a group, has been

* Director, Fiscal Affairs Department, International Monetary Fund. The views expressed in this article are strictly personal and should not in any way be considered as official positions of the International Monetary Fund. In preparing this article, the author has benefited from valuable assistance or comments from Ke-young Chu, Luc De Wulf, Ved Gandhi, Manuel Guitian, Peter Heller, Richard Hemming, Walter Mahler, Ahsan Mansur, A.F. Mohammed, Partho Shome, Mohammed Shadman, Nick Stern, Douglas Scott, and Wanda Tseng. They do not necessarily agree with the views expressed and, of course, the author is solely responsible for any errors.

quite good. Given this performance, and the fact that in many of the countries the public sector has played a major role, there must be a presumption that the role of the public sector must have been an important and positive one; or, at a minimum, that it must not have been an obstacle to economic development.

In theory, at least, there are two polar roles that could be assigned to the public sector: an all-embracing one, derived broadly from the work of Karl Marx, and a far more limited one, derived from the work of Adam Smith and his followers. Since we are dealing with market economies, there is a presumption that the optimal role for the public sector would be closer to the one envisaged by Smith. However, that role must depend on the weights that policymakers assign to objectives such as income distribution and stabilization, objectives that were not taken into account by market-oriented classical economists. These other objectives may take several forms. For example, income distribution may refer to distribution by size of income, or between urban and rural dwellers, or between wage earners and those who receive other forms of income, or between the workers and the pensioners, or between the very poor (say, the bottom 10 per cent of the income distribution) and the rest. Stabilization may refer to stabilization of, for example, output, prices, balance of payments and employment.

The greater is the concern of the policymakers for these other objectives, the greater would be the expected role of the government.¹ Furthermore, even within the purely allocative, or efficiency-enhancing role emphasized by laissez-faire economists, one could argue that, given the nature of the developing economies and the need for infrastructure (both social and tangible) and the widespread existence of externalities and distortions, the optimal role of the public sector must be greater in developing countries than in more advanced economies. Here, however, one could make an important distinction between an optimal "normative" role and an optimal "positive" role.

If governments were made up of policymakers who: (i) did not have any objectives other than those consistent with the "public interest"; (ii) had all the information needed to conduct good economic policy; and (iii) did not make mistakes, then the relevant role for the public sector would be the "normative" one. In other words, the government should intervene in all those cases where there would be a presumption, on the basis of available knowledge and of rational forecasts, that this intervention would bring results that maximize the public welfare given the resource constraints.²

The governments of the Asian countries, as with all governments, are made up of individuals who, to varying extents, have personal objectives that may at times take precedence over the national objectives; and, of course, the national objectives are not always definable or defined. These personal objectives may reflect pressures created by political affiliations, racial, demographic or

1. Unless the objectives conflict with each other. Conflicting objectives may imply a lesser role for the government than non-conflicting objectives.

2. Many decisions that are correct on the basis of the information available at the time they are made prove wrong if the environment changes. Our definition of a policy mistake would not extend to these cases.

regional characteristics, class affiliations, friendships, family connections and personal ambitions or greed. When these special interests play a significant role, the results of economic policy and/or the costs of carrying out those policies are likely to differ from those that would have prevailed in the absence of these special interests. More specifically, one would expect that desirable changes in the national objectives would come at higher, and sometimes much higher, costs than in the ideal situation. In such cases, the optimal "positive" role of the public sector is likely to be somewhat smaller than, and different from, the optimal "normative" role. In other words, it would be desirable to reduce the power and, thus, the discretion that policymakers have. Especially in these cases, policies ought to be judged by results rather than by declarations of intent.

Governments can pursue their economic objectives through the budget or through regulations. For example, assistance to a producer can be given through a direct subsidy, which requires higher public expenditure, and, thus, higher levels of taxation or borrowing, or, indirectly, by limiting or forbidding the import of the product produced by this producer. Other types of subsidies can be given through, for example, the credit mechanism, through overvalued exchange rates, through so-called tax expenditures and through special permission for particular activities (permission denied for other activities).³ Therefore, the role of the public sector in the economy cannot be assessed only by the ratios of taxes or public spending to gross domestic product (GDP) as it is often done, although these ratios are important. That role should be assessed also by the many regulatory policies that exist in all countries. These policies may not be correlated (or may even be negatively correlated) with traditional measures of the public sector (share of total taxes or total public expenditure in national income). Unfortunately, these regulatory policies are not quantifiable in the same way as tax revenue or public spending so that countries cannot be objectively ranked on this basis.

In most developing countries, the government attempts to determine, among other things: (i) who can import, what can be imported and how much; (ii) the domestic prices at which goods can be imported or exported; (iii) what can be produced domestically and where; (iv) the cost of domestic credit; (v) who gets bank credit, how much and for what purpose; (vi) who can borrow abroad; and (vii) the prices at which many goods and services can be sold. When all these controls are taken into account, it can be safely stated that the impact of public sector intervention on the economy is generally far greater in developing countries than in developed countries, in spite of their lower tax and expenditure ratios.

There is a fundamental difference between policies that control the economy through the tax-expenditure process and those associated with the regulatory route: there is generally a limit (political or administrative) to taxation and to

3. For example, a zoning regulation that permits a particular use of land for a given activity, but denies use for other activities, is a form of hidden subsidy.

public spending but there is none to regulations since these can be introduced with very little *direct* cost.⁴ These can be multiplied ad infinitum and can be extended to all areas of economic activities. Therefore, the *potential* for economic inefficiency in the use of the latter can, in principle, be far greater than in the use of the former.⁵ The efficiency costs to an economy from import quotas, high import duties, unrealistic exchange rates, negative interest rates and uneconomic pricing policies could, under particular circumstances, exceed those associated with inefficient and burdensome tax systems and expenditure programs.

The Figure provides a stylized version of the point that I wish to make. The horizontal axis measures the net economic benefit (i.e., net of economic costs) that the country derives from public sector intervention. These benefits are positive for some level of intervention and become negative when intervention is carried too far, when it serves particular rather than general interests, or when it is based on wrong information, wrong expectations, or wrong policies. The vertical axis measures the degree of public sector intervention, assuming that somehow we have an index that properly measures it. The curves *OA*, *OB* and *OC* show how countries can benefit from various degrees of intervention. At points *S*, *T* and *V* the degree of intervention is optimal given the quality of that intervention.⁶ Each curve represents a given country at a given moment in time, i.e., with a given need for public sector intervention and a given set of policymakers. In the country represented by curve *OC* the beneficial effect of public sector intervention is much greater than in the country represented by curve *OA*. This may be due to differences in the efficiency of the private sector in allocating resources and in distributing income; or, it may be due to the fact that the policymakers in country *OC* would predominantly pursue the public interest while those in country *OA* would promote policies that ultimately benefit them and their clientele more than the country at large.⁷ Of course, both these groups of policymakers will declare that the policies they are promoting are for the benefit of the country. When intervention is carried beyond the optimal levels represented by *S*, *T* and *V*, the welfare of the country begins to fall. Eventually, public sector policies may do more economic damage than good (when the curves cross the vertical axis).

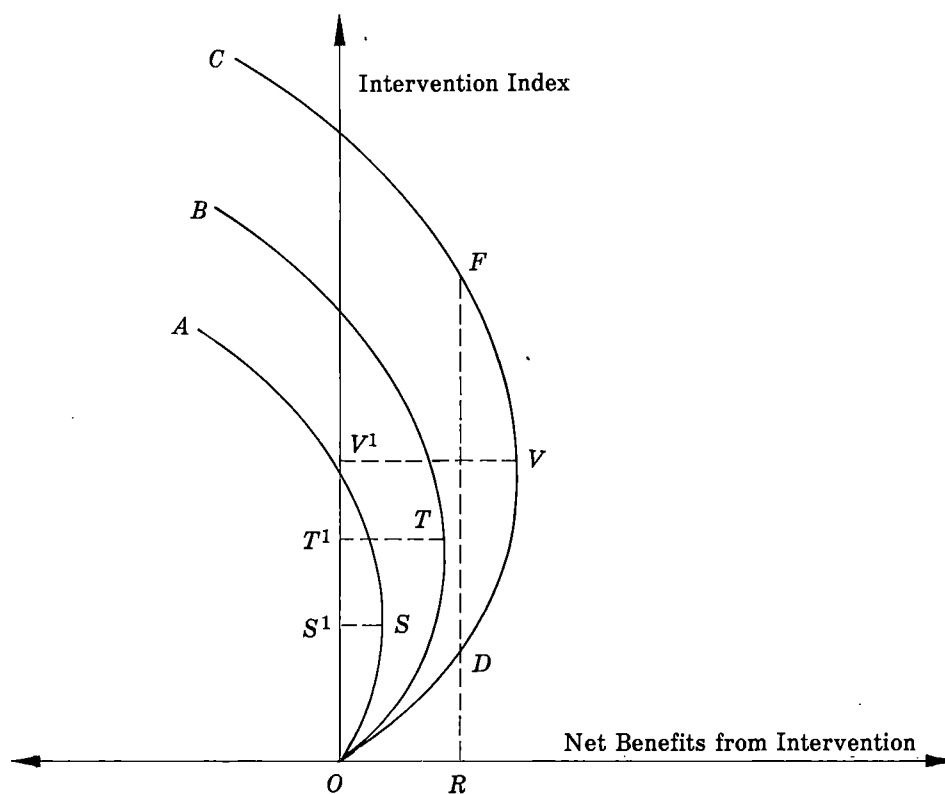
4. Vito Tanzi, "Is There a Limit to the Size of Fiscal Deficits in Developing Countries?", *Public Finance and Public Debt*, Proceedings of the 40th Congress of the International Institute of Public Finance (Innsbruck, 1984), pp. 139-152.

5. A more political discussion would also emphasize the political costs of regulations associated with the reduction in economic freedom.

6. It will be noted that, except for the points where intervention is optimal, for each attainable net benefit, say *OR*, there will be two points on the curves at which that net benefit is attained (*D* and *F*). These two points will be consistent with a higher (*F*) or lower (*D*) degree of intervention. As the net *economic* benefits at these two points are the same, one cannot choose on a purely economic basis. The choice between, say, *D* and *F* must be made on political grounds. Those who assign a high weight to economic freedom would prefer option *D* over option *F*. But the choice would be political rather than economic.

7. In this theoretical discussion, we assume that there is a social welfare function that indicates how the public interest is affected by public sector intervention.

Figure



Although it is difficult to specify the determinants of the optimal role of the public sector in the real world, they are likely to be related to how well the government is pursuing the traditional economic objectives of allocation of resources, redistribution of income and stabilization of the economy.⁸ Basically, the optimal role will depend not only on the results of economic policy, as measured by the objectives pursued, but also on the costs of achieving these objectives.

My basic, and admittedly impressionistic, conclusions about the market economies of developing Asia are the following. I would conclude that by and large economic policy has been better in these countries than in other regions. However, the good results were achieved at higher costs than was necessary. Putting it differently, intervention by the public sector was carried to a degree somewhat beyond the optimum.

8. Of course, the fundamental political objective of any government is the maintenance of law and order enforced by an honest executive and judiciary.

The Role of the Public Sector in Resource Allocation

Public Spending: Level and Composition. Table 1 provides information, for the 1981-1985 period, for public expenditure in the nine countries considered. Some of the data in this table and in all the others may not be strictly comparable so that caution is warranted. The main objective here is to provide broad impressions rather than precise statistical information. There is a wide range between the almost 45 per cent of GDP reached by total public expenditure in Malaysia in 1982 and the level (about 13 per cent of GDP) shown by the Philippines in 1984-1985. It does not take special expertise to conclude that, *from an allocative point of view* but not necessarily from a stabilization point of view, public expenditure was probably excessive in the former and too low in the latter.⁹ The levels shown by India and Sri Lanka appear to be relatively high by international comparisons. Possibly, the same could be said for Indonesia, Pakistan and Thailand. The validity of these conclusions, however, depends on: (i) whether the countries could easily and cheaply finance that level of expenditure; and (ii) whether it was efficiently spent. When these considerations are taken into account, the above conclusions may have to be revised. However, it is important to note that precise answers are just not possible.

Table 1 also provides a breakdown of total expenditure between current and developmental. From a stabilization point of view, this distinction is generally not very useful as all expenditure contributes to demand pressure and affects the balance of payments. However, from a developmental point of view, it is often considered a useful distinction by many economists and policymakers who believe that a large share of developmental expenditure in the total is a sign of good economic policy. However, there is no standardized way of classifying expenditure as current or capital so that what is classified as current in one country may be classified as developmental in another. Furthermore, since it is easier to obtain foreign grants and concessionary credit for developmental expenditure than for current expenditure, there is an incentive to make this category look larger than it might be in reality.

Some aspects of Table 1 merit comment. First, a very large proportion of total public spending is classified as developmental. In India and Bangladesh developmental expenditure far exceeded that for current expenditure; in India it was twice as large. Second, a substantial change over the years characterizes this category compared with current expenditure. For example, in Malaysia developmental public expenditure dropped from almost 20 per cent of GDP in 1981 to about 9 per cent in 1985; in Bangladesh, from 13.2 per cent in 1982 to 9 per cent in 1985; in Indonesia, from 12.1 per cent in 1982 to 9 per cent in 1984

9. This statement should not be understood to imply that the Philippines should have increased the level of its public spending *regardless of any other consideration*. It only means that economic performance of that country would have improved if it had raised its *productive* public expenditure by a given amount while financing it by, say, taxes with the lowest distortive effects. The reverse might be true for Malaysia, which could have reduced the lowest priority spending while reducing its use of the most expensive borrowing.

Table 1: Public Expenditure
(Percentage of GDP)

Country	1981	1982	1983	1984	1985
Bangladesh	17.4	19.9	17.3	16.1	16.4
Current	..	6.7	6.6	6.6	7.4
Developmental	..	13.2	10.7	9.5	9.0
India	29.7	32.2	31.1	33.6	33.3
Current	10.1	12.1	10.9	11.4	12.0
Developmental	19.6	20.1	20.2	22.2	21.3
Indonesia	23.7	23.9	23.5	20.0	23.0
Current	12.9	11.8	11.5	11.0	11.7
Developmental	10.8	12.1	12.0	9.0	11.1
Republic of Korea	..	22.5	20.9	20.6	20.6
Current	..	16.0	15.7	15.6	16.0
Developmental	..	6.5	5.2	5.0	4.6
Malaysia	43.5	44.6	38.7	34.4	35.2
Current	24.4	26.5	24.5	23.4	26.0
Developmental	19.9	18.6	14.3	10.8	9.3
Pakistan	22.5	22.0	24.1	23.9	24.4
Current	14.3	14.4	16.5	17.8	17.8
Developmental	8.2	7.6	7.6	6.1	6.6
Philippines	19.6	19.7	17.8	12.9	13.2
Current	9.7	10.2	10.0	8.4	9.7
Developmental	9.9	9.5	7.8	4.5	3.5
Sri Lanka	33.0	33.8	32.5	30.8	32.9
Current	17.2	18.3	17.8	15.7	17.1
Developmental	15.9	15.4	14.8	15.1	15.8
Thailand	22.3	23.7	23.1	23.4	24.8
Current	14.6	15.5	15.8	16.3	16.9
Developmental	7.9	8.1	7.4	7.0	7.8

.. = not available.

Sources: Various government documents and official statistics of the International Monetary Fund and the World Bank.

and rose again to over 11 per cent in 1985; and in the Philippines, from 9.9 per cent in 1981 to 3.5 per cent in 1985. Financing difficulties were probably behind these reductions. Third, there was a very low level of government developmental expenditure in the Republic of Korea, the country with the highest rate of growth.

Although developmental expenditure is not the same as public investment, it is closely related to it.¹⁰ Table 2 shows total gross investment (gross capital formation) as a percentage of GDP and a breakdown of gross investment into public and private for the nine countries. The large role played by the public sector in the capital accumulation of many of these countries is highlighted by this table. In Bangladesh, India, Malaysia, Pakistan and Sri Lanka the public sector accounted for about half or more than half of total gross investment. In the Philippines and in Thailand the proportion was somewhat lower. In the Republic of Korea public investment was only about 20 per cent of total investment. In many of the countries considered, the ratio of gross investment to GDP was high, partly explaining the good growth performance of these countries.¹¹

The magnitude of the public sector's gross investment as a share of GDP raises several questions. First, was the investment of the public sector in areas of genuine government concerns such as transportation, irrigation, education and health or was it in areas (e.g., manufacturing and agriculture) that, according to the normative theory of public sector intervention, should have been left to the private sector? Second, was the allocation of public sector investment made on the basis of efficiency criteria or on the basis of other criteria reflecting social, political, or private individuals' objectives? Third, how much impact did the cost of raising capital, often from foreign sources, have on the determination of the size of the investment budget and on the choice of specific projects? Fourth, how much impact did the borrowing have on future government expenditure for interest payments?

In several of these countries, historical factors or social considerations contributed or were mainly responsible for the fact that public enterprises were often engaged in activities that are normally left to the private sector in market economies. In recent years, there has been some movement toward the privatization of some of these enterprises. In Bangladesh, for example, the share of public investment in manufacturing declined from about 66 per cent of total investment in 1980 to less than 40 per cent in 1984/85. However, in most of these countries, public sector involvement in areas in which it does not have an obvious role to play remains too large.

On the basis of available information, it is realistic to conclude that public sector investment has often not followed efficiency criteria. There are too many

10. In some countries, developmental expenditure includes some development lending and even some current expenditure. Also, in some countries, no distinction is made between developmental expenditure and public investment.

11. See Mario Blejer and Mohsin Khan, "Private Investment in Developing Countries", *Finance and Development* (June 1984), for the relationship between the level of investment and growth.

Table 2: Gross Investment
(Percentage of GDP)

Country	1981	1982	1983	1984	1985
Bangladesh	15.1	13.6	12.3	13.2	13.0
Public	6.2	6.2	5.6	6.1	5.9
Private	8.9	7.4	6.7	7.1	7.1
India	23.9	24.4	23.6	24.4	25.4
Public	11.8	12.2	11.2	12.1	11.9
Private	12.1	12.2	12.3	12.3	13.5
Indonesia	27.1	25.8	24.8	20.3	19.1
Public ^a	5.8	9.1	9.5	6.3	6.9
Private	21.3	16.7	15.3	14.0	12.2
Republic of Korea	30.3	28.6	29.9	31.9	31.2
Public	4.3	4.6	4.7	4.8	4.7
Private	26.0	24.0	25.2	27.1	26.4
Malaysia	36.5	39.2	38.7	35.8	32.6
Public	16.7	19.0	19.1	16.2	16.2
Private	20.5	19.0	18.3	18.0	16.5
Pakistan	15.2	15.3	15.7	15.2	15.0
Public	9.2	9.7	9.7	9.0	8.8
Private	6.0	5.6	6.0	6.1	6.2
Philippines	26.1	25.6	25.2	20.1	16.4
Public	9.9	9.5	7.4	4.5	3.5
Private	16.2	16.1	17.8	15.6	13.0
Sri Lanka	27.4	30.5	29.0	25.7	24.8
Public	13.3	15.5	13.0	12.1	11.8
Private	14.1	15.0	16.0	13.6	13.0
Thailand	24.7	21.0	23.0	22.1	21.2
Public	8.7	7.9	7.9	7.9	8.6
Private	16.0	13.2	15.1	14.2	12.7

^a Includes the investment of public enterprises.

Sources: Various government documents and official statistics of the International Monetary Fund and the World Bank.

examples of large "white elephants" that have come into existence for reasons that had little to do with efficiency. In many cases, these projects have contributed significantly to the foreign indebtedness of these countries and will thus represent a drag on future standards of living. The information on rates of return to public sector investments indicates that although in these countries the public enterprises (taken as a group) were often not the major drain on the budget as in countries in other regions, the rates of return were often very low, especially when enterprises engaged in oil production are excluded.¹²

According to available information, the recent financial performance of public sector *industrial* enterprises in Bangladesh shows an overall rate of return of 0.4 per cent on the book value of assets in 1985/86. For the non-financial public enterprises taken as a whole, the rate of return on assets was higher at 3.7 per cent in 1984/85. For India net profits as a percentage of capital employed in the public manufacturing and service enterprises of the Central Government was 2.3 per cent in 1982/83 and 2.8 per cent in 1985/86. However, these figures hide the fact that all the profits came from the 12 enterprises engaged in oil production. As a group, non-oil enterprises have been making losses. State government enterprises have also been running losses. In Malaysia the number of public enterprises increased rapidly between 1980 and 1984. Most of these relied on the government for capital or for guaranteeing external loans. These public enterprises have been running large losses in recent years, in part as a consequence of the fall in commodity prices. Steps have been taken to privatize some of these enterprises. In the Philippines the rate of return on equity investment in 15 major public enterprises was estimated at 2.8 per cent for the years 1980-1984. In Indonesia the rate of return on the assets of 142 non-financial public enterprises (excluding Pertamina, the oil corporation) was about 1 per cent in 1985. For all public enterprises combined, the share of profits *before* tax to total assets was about 3 per cent in 1985. However, much of the profits came from financial enterprises and from Pertamina. Losses were particularly significant in enterprises engaged in industry and communications. In Sri Lanka the returns on many of the massive budgetary capital projects carried out since 1978 have been disappointing. In Pakistan the productivity of public investment has also been low.

Several factors have contributed to this low productivity of public investment. These include: (i) the choice of unprofitable investment projects for political or other reasons; (ii) less emphasis on efficiency than on objectives such as employment, redistribution of income and regional development; (iii) low capacity utilization; (iv) poor pricing policies; (v) managerial staffing at times based more on political considerations than on managerial ability; (vi) the absence of discipline imposed by competition and profit motive; and (vii) for some of them in recent years, the fall in commodity prices.

Whatever the reasons, the net result has been that while the rates of growth

12. For the role of public enterprises in developing countries, see Robert H. Floyd, Clive S. Gray and R.P. Short, *Public Enterprise in Mixed Economies* (Washington, D.C.:International Monetary Fund, 1984).

of many of these countries have been relatively high, they have been lower than they should have been considering the high level of total investment. In other words, the incremental capital output ratios (ICOR) in several of these countries have been often high. In India, for example, the ICOR has ranged between 3 and 7 in the first half of the 1980s and was about 5 more recently; in Malaysia it has ranged from about 5 in 1982 to above 12 in 1986; in the Philippines it was 9.8 in 1980-1983; and in Thailand it was 4.6 in 1980-1983. These figures refer to the economy as a whole, but since public investment has been a large share of the total, and since private sector investment is likely to have been more productive than public sector investment, these figures are indicative of the contribution of public investment to growth.

The productivity of investment can also be gauged by its impact on foreign debt. In many of these countries, a good part of public investment was financed by foreign borrowing. When, as in the Republic of Korea, foreign capital was used to finance investment projects with high productivity and high potential for earning foreign exchange, it could be argued that the borrowing was fully justified on allocative grounds. In other words, when the marginal productivity of capital exceeds the marginal cost of borrowing, the country is justified in contracting foreign debt.¹³ However, in several of these countries investments that would generate very low rates of return were often financed by foreign loans obtained at financing costs that were much higher than the projects' expected rates of return.¹⁴ This is an important aspect that deserves further attention.

Public Spending and the Growth of Foreign Debt. For the nine countries combined, the foreign debt rose from about \$44 billion in 1975 to \$109 billion in 1980 and to \$203 billion in 1986 (see Table 3). Interest payments on this debt rose from \$1.4 billion in 1975 to \$13 billion in 1986 (see Table 4). Dividing the interest payments by the stock of foreign debt provides a measure of the average cost of foreign borrowing for the region as a whole. This cost was 3.3 per cent in 1975 and rose to 7.3 per cent in 1981, but declined to 6.4 per cent in 1986 (see Table 5). These are *average* costs for the whole of the foreign debt. They are, therefore, biased downward by concessional loans which are very important for some of these countries such as Bangladesh, India and some others. The terms of commercially obtained debt were higher. For example, they ranged between 11.3 per cent and 16.1 per cent for Sri Lanka between 1981 and 1985.

A comparison of these costs with the rates of return that the public enterprises of these countries were obtaining on their investment suggests that the allocation of these foreign resources has been far from optimal. In order for countries to avoid long-term difficulties on their external borrowing, the uses to which

13. Even in this case, prudence is required. Since the capital market is not perfect, the country must pay attention to the time profile of the expected returns to the investment and to the time profile of the expected future payments.

14. In some cases, the borrowing was done by the central government and the resources were transferred to the enterprises as loans or grants. In other cases, the government guaranteed the loans.

Table 3: **Foreign Debt**
(\$ million)

Country	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Bangladesh	1,611	1,938	2,294	2,767	2,955	3,793	4,490	5,070	5,099	5,844	6,497	7,538
India	12,345	13,412	14,789	15,620	15,948	17,670	19,328	20,970	23,049	24,875	28,507	31,292
Indonesia	10,363	12,626	14,940	15,729	16,568	18,241	20,452	25,854	30,070	31,621	37,316	42,028
Republic of Korea	6,030	9,544	13,372	15,442	20,271	26,632	29,274	35,901	38,923	40,619	45,747	42,905
Malaysia	1,948	2,710	3,349	3,762	4,716	5,730	8,250	11,899	16,279	17,754	19,150	20,565
Pakistan	5,900	6,875	7,483	8,436	9,097	9,943	10,924	11,334	12,485	12,731	12,837	14,758
Philippines	3,411	4,618	5,888	10,969	13,419	17,533	21,130	24,751	24,237	24,574	25,137	23,041
Sri Lanka	602	701	796	1,046	1,143	1,569	1,899	2,300	2,641	2,808	2,953	3,746
Thailand	1,696	2,419	3,393	4,871	6,681	8,193	10,358	11,548	12,337	14,812	16,364	17,114
Total	43,906	55,843	66,304	78,642	88,798	109,244	126,105	149,627	165,720	175,638	194,508	202,987

Sources: Various government documents and official statistics of the International Monetary Fund and the World Bank.

Table 4: Interest Payments on Foreign Debt
(\$ million)

Country	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Bangladesh	35	46	57	61	69	72	96	120	119	121	138	138
India	299	345	412	461	487	497	450	609	904	909	778	799
Indonesia	460	691	814	787	1,164	1,332	1,671	1,918	1,979	2,493	2,558	2,904
Republic of Korea	225	339	552	931	1,154	2,609	3,536	3,632	3,067	3,688	3,546	3,589
Malaysia	81	180	204	238	304	406	641	808	1,104	1,218	1,329	1,465
Pakistan	115	138	197	262	285	329	362	421	584	528	592	661
Philippines	104	158	257	440	626	975	1,374	1,850	1,789	2,238	1,982	1,933
Sri Lanka	29	32	35	42	48	58	121	128	162	149	171	175
Thailand	93	106	137	307	551	680	987	1,006	952	1,108	1,152	1,286
Total	1,441	2,035	2,865	3,529	4,688	6,968	9,238	10,492	10,660	12,452	12,452	12,950

Source: International Monetary Fund.

Table 5: Effective Interest Rate

Country	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Bangladesh	2.2	2.4	2.5	2.2	2.3	1.9	2.1	2.4	2.3	2.1	2.1	1.8
India	2.4	2.6	2.8	3.0	3.1	2.8	2.3	2.9	3.9	3.7	2.7	2.6
Indonesia	4.4	5.5	5.4	5.0	7.0	7.3	8.2	7.4	6.6	7.9	6.9	6.9
Republic of Korea	3.7	3.6	4.1	6.0	5.7	9.8	12.1	10.1	7.9	9.1	7.8	8.4
Malaysia	4.2	6.6	6.1	6.3	6.4	7.1	7.8	6.8	6.8	6.9	6.9	7.1
Pakistan	2.1	2.2	2.6	3.1	3.1	3.3	3.3	3.7	4.7	4.1	4.6	4.5
Philippines	3.0	3.4	4.4	4.0	4.7	5.6	6.5	7.5	7.4	9.1	7.9	8.4
Sri Lanka	4.8	4.6	4.4	4.0	4.2	3.7	6.4	5.6	6.1	5.3	5.8	4.7
Thailand	5.5	4.4	4.0	6.3	8.2	8.3	9.5	8.7	7.4	7.5	7.0	7.5
Average	3.3	3.7	4.0	4.5	5.3	6.4	7.3	7.0	6.4	7.1	6.3	6.4

Note: Effective interest rate is defined as interest payment/total debt.

Sources: Tables 3 and 4.

foreign loans are put must generate rates of return at least equal to the cost of borrowing. This has hardly been the case for investments by public enterprises and, as indicated below, it is unlikely to have been the case for investments in infrastructure or for those private investments that benefited from generous tax incentives.

The consequence has been a considerable increase in the ratios of external debt to GDP for the majority of these countries (see Table 6). In some of these countries, the ratios have become disturbingly high. It is not surprising that the ratio of debt service to the earnings of these countries from their export of goods and services has been growing very fast except in the Republic of Korea (see Table 7).¹⁵ Since a large proportion of the foreign debt is held or guaranteed by the public sector and since much of this went to finance investment projects, it is obvious that the role of the public sector in allocating investment has left much to be desired. This borrowing may have created jobs and incomes in the short run but at the cost of reductions in the future disposable incomes of these

Table 6: Ratio of External Debt to GDP
(Percentages)

Country	1981	1982	1983	1984	1985	1986
Bangladesh	..	35.3	42.2	39.8	37.8	45.0
India	12.3	14.3	14.3	15.5	15.5	..
Indonesia	21.2	23.0	31.0	31.1	35.3	45.8
Republic of Korea	49.0	53.5	53.1	52.3	55.8	46.9
Malaysia	34.0	47.3	59.4	56.5	69.6	85.3
Pakistan	38.2	37.2	43.8	41.0	40.7	44.1
Philippines	54.4	61.6	72.7	80.7	82.1	..
Sri Lanka	52.3	56.2	58.6	52.0	55.7	60.7
Thailand	30.6	33.3	34.7	37.4	44.8	..

.. = not available.

Sources: Various government documents and official statistics of the International Monetary Fund and the World Bank.

15. Some of this increase was accounted for by the fall in commodity prices and some by changes in the exchange rates. On the other hand, interest rates generally fell over the period shown in Table 7.

Table 7: **Debt-Service Ratio**
(Percentage of exports of goods and services)

Country	1981	1982	1983	1984	1985	1986
Bangladesh	..	24.5	28.7	25.7	34.0	43.5
India	9.9	12.1	14.0	16.1	18.0	19.6
Indonesia	11.8	15.0	15.5	18.9	23.4	37.3
Republic of Korea	21.2	22.6	20.9	22.9	23.9	24.7
Malaysia	8.0	10.2	11.1	13.3	17.4	18.8
Pakistan	23.5	25.4	25.2	31.7	36.6	43.7
Philippines	24.9	36.6	32.7	35.0	35.0	..
Sri Lanka	19.3	22.3	24.4	17.5	22.3	27.6
Thailand	19.0	20.9	23.2	24.0	27.4	27.0

.. = not available.

Sources: Various government documents and official statistics of the International Monetary Fund and the World Bank.

countries. The servicing of the foreign debts can be seen as a tax that will reduce the net income available for domestic uses in these countries for years to come.¹⁶

Other Aspects of Public Expenditure. The current expenditure of the public sector has not been as high as the developmental expenditure in the majority of these countries. It was, for example, relatively low in Bangladesh, India, Indonesia and the Philippines. However, it was high in Malaysia (see Table 1).¹⁷ These levels of current expenditure were achieved in spite of: (i) high expenditure for defense in several of these countries (India, Republic of Korea, Pakistan and Thailand); (ii) fast-growing expenditure for interest payments on both domestic and foreign debt — total public debt has also been rising rapidly in some of these countries (India, Malaysia, Pakistan, Sri Lanka and Thailand) and it has reached worrisome levels in a few of them; and (iii) relatively high levels of spending for education in several of these countries.

16. It may be argued that the financial returns from infrastructure projects take a long time to materialize. However, the time may just be too long and the benefits must be discounted to the present.

17. It is interesting to note that this expenditure was not particularly low in the Republic of Korea.

The Asian countries have preferred indirect measures for redistributing income; as a consequence, the public sector's expenditure for social security, direct welfare payments and subsidies has been low by international standards. For example, this expenditure has been less than 10 per cent of total expenditure compared with about 25 per cent in Latin America. The level of expenditure on operations and maintenance has been very low in many of these countries.

From much of the evidence available, it can be concluded that these countries have been more successful at building infrastructure than at its adequate maintenance or use.¹⁸ Pressures of various kinds have induced the policymakers to give high priority to new investment projects rather than to ensuring that the existing infrastructure is kept in good working order and is fully utilized. These pressures have included: (i) the more benevolent international attitude toward "capital" spending compared with "current" spending; (ii) the greater availability of loans for investment projects than for maintenance expenditures; and (iii) the political benefits associated with the opening of new infrastructure or new enterprises.

Inadequate resources for the operation and maintenance of infrastructure and for the operation of public services have resulted in both the deterioration and inadequate utilization of existing capital assets. A majority of these countries have suffered to varying degrees from this shortcoming. Financial difficulties in some of them have inevitably contributed to this problem but they cannot be completely blamed for it. The net effect has been a serious deterioration in the existing public sector capital stock.¹⁹ In the Philippines, for example, in 1985 operation and maintenance expenditures in real terms were only 60 per cent of their 1977 levels. In Indonesia much of the infrastructure built over the past two decades is reported to be deteriorating and in need of costly rehabilitation. For example, only 40 per cent of national and provincial roads are considered in a stable condition and such a situation is also reported for irrigation canals. Similar results have been reported for some of the other countries. A recent study included India, Indonesia, Pakistan, Philippines, Sri Lanka and Thailand among the group of countries perceived as having recurrent cost problems.²⁰

This erosion of the capital stock of these countries must again be seen in the context of the rapid rise in the stock of foreign debt that was in part accumulated to finance their infrastructure. Thus, while the foreign debt must be serviced in the future regardless of what happens to the capital stock, the ability of that capital to generate future income will decline if it is not properly

18. This is a rather general problem in developing countries. There are too many examples of hospitals or schools that have been built but that have remained unutilized for long periods because of a lack of resources for operations and maintenance. And there are examples of new roads being built while old roads are not properly maintained. In many cases, such infrastructure was built with borrowed external funds.

19. This means that the investment figures overstate net investment since depreciation is very high.

20. See Peter S. Heller and Joan E. Aghevli, "The Recurrent Cost Problem: An International Overview" in John Howell, ed., *Recurrent Costs and Agricultural Development* (London: Overseas Development Institute, 1985) pp. 22-49.

maintained. In the absence of adequate planning and budgeting for operations and maintenance, borrowing for new investment is not likely to be cost-effective, and the expected increase in the countries' earning power to repay the accumulated debt will be less rapid than it could have been.

The Tax System. One of the major instruments available to policymakers for pursuing their social and economic objectives is the tax system. Tables 8 and 9 provide some detailed information on the structure of the tax systems of the countries under consideration. Unfortunately, the statistics are not very up to date. However, these statistics do not change much over the short run so that the tables are likely to be fairly representative of the current situation.

A few features of the statistics merit attention. First, the levels of corporate income tax revenue in Indonesia and Malaysia are high. These are essentially taxes on mineral exports and especially on oil. They are thus a potentially unstable source of revenue, as both countries have recently discovered. Second, the revenue from income taxes on individuals is relatively low. Third, the contribution of excises to total revenue is much higher than that of general sales taxes. This partly reflects historical factors and partly the desire of policymakers to influence the pattern of consumption of the citizens. Fourth, foreign trade taxes still play an important role which may partly reflect the desire of policymakers to influence the pattern of imports. Fifth, the level of social security contributions is very low.

Table 10 provides more recent estimates of the ratio of tax revenue to GDP.²¹ No particular trend is noticeable in the ratios shown in the table. These countries can hardly be considered overtaxed, especially when it is realized that the high tax ratios for Indonesia and Malaysia are largely the result of taxes on the rents that these countries receive from their mineral deposits. The comparison of the data in Table 10 with those in Table 1 shows that tax revenue covers only a relatively small fraction of these countries' total public expenditures. The difference is of course covered by borrowing, grants and non-tax revenue. For many of the countries considered, tax revenue covers broadly the level of current public expenditure.

There are two aspects that merit consideration as they are linked with earlier discussion in this article. These are the elasticity of these tax systems and their role in encouraging capital accumulation. Table 10 indicates that the buoyancy of these tax systems was around 1.0 since the tax ratios do not show any particular trend. However, Table 10 does not show that these constant ratios were often achieved at great political costs, due to the many discretionary changes that the countries needed to make in maintaining these ratios constant, since the elasticity of these tax systems was in many cases much lower than 1.0. For example, in some unpublished studies elasticity has been estimated at 0.5 for the Philippines, 0.92 for Thailand, and 0.5 for import duties and major excises in Malaysia.

21. It should be noted that the sources of Table 10 are different from those of Tables 8 and 9.

Table 8: Tax Revenue by Type of Tax, Three-Year Averages, 1981-1983
(Percentage of GDP)

Domestic Taxes on Goods and Services																
Country	General															
	Income Taxes				General sales turnover,					Foreign Trade			Social Security and Wealth			
	Total Taxes	Indi-vidual	Corpo-rate	Other	Total	VAT	Excises	Other	Total	Import duties	Export duties	Other	Property	Other		
Bangladesh ^a	7.43	1.14	1.08	0.06	—	2.89	1.31	1.49	0.09	2.98	2.74	0.18	0.07	—	0.22	0.19
India ^b	14.53	2.40	0.94	1.33	0.14	8.53	0.13	5.08	0.04	3.12	2.98	0.04	0.11	—	0.15	0.32
Indonesia ^b	19.87	16.16	0.45	14.78	0.92	2.27	1.06	0.99	—	1.01	0.84	0.17	—	—	0.31	0.13
Korea, Rep. of ^c	16.59	4.37	2.32	2.05	—	8.49	4.09	2.51	1.88	2.79	2.79	—	—	0.22	0.17	0.55
Malaysia	22.81	10.32	2.28	8.05	—	4.73	1.50	1.80	1.43	7.04	3.85	3.19	—	0.15	0.15	0.42
Pakistan	12.92	2.49	..	..	..	5.21	0.99	4.22	—	5.17	4.76	0.16	0.25	—	0.05	—
Philippines ^d	10.75	2.40	1.13	1.29	—	4.86	1.56	2.06	1.00	2.80	2.69	0.09	0.02	—	0.43	0.26
Sri Lanka	16.69	2.70	0.74	1.96	—	6.76	4.18	2.44	0.14	6.90	3.67	3.21	0.01	—	0.07	0.26
Thailand ^{c,d}	14.12	3.03	1.54	1.49	—	7.44	2.80	3.29	0.73	3.20	2.79	0.41	0.01	—	0.35	0.10

.. = not available.

— = nil.

a 1978-1980.

b State tax revenues are included.

c 1982-1984.

d Local tax revenues are included.

Source: International Monetary Fund, *Government Finance Statistics Yearbook*, vol. 9, 1985.

Table 9: Tax Revenue by Type of Tax, Three-Year Averages, 1981-1983
(Percentage of total tax revenue)

Domestic Taxes on Goods and Services																
Country	Total Taxes	Income Taxes			General sales turnover, VAT			Foreign Trade			Social Security	Wealth and Property	Other			
		Total	Indi- vidual	Corpo- rate	Other	Total	VAT	Excises	Other	Total				Import duties	Export duties	
Bangladesh ^a	100	15.41	14.55	0.85	—	38.93	17.67	20.11	1.16	40.09	36.79	2.39	0.91	—	3.03	2.55
India ^b	100	17.01	6.62	9.47	0.92	57.69	0.94	36.49	0.26	22.34	21.25	0.29	0.80	—	1.00	1.96
Indonesia ^b	100	81.22	2.30	74.28	4.64	11.50	5.36	5.01	—	5.04	4.21	0.82	—	—	1.59	0.66
Korea, Rep. of ^c	100	26.36	13.97	12.39	—	51.16	24.68	15.12	11.36	16.80	16.80	—	—	1.33	1.05	3.30
Malaysia	100	45.26	9.98	35.27	0.01	20.73	6.55	7.89	6.30	30.84	16.90	13.94	—	0.65	0.66	1.86
Pakistan	100	19.29	..	..	..	40.35	7.69	32.66	—	39.99	36.87	1.23	1.88	—	0.35	0.02
Philippines ^d	100	22.85	10.52	12.01	0.02	45.20	14.49	19.12	9.27	26.00	25.04	0.80	0.16	—	4.03	2.42
Sri Lanka	100	16.24	4.45	11.80	—	40.50	25.03	14.64	0.83	41.29	21.98	19.25	0.05	—	0.43	1.53
Thailand ^{c,d}	100	21.45	10.87	10.58	—	52.69	19.81	23.32	5.14	22.64	19.67	2.89	0.08	—	2.49	0.73

.. = not available.

— = nil.

a 1978-1980.

b State tax revenues are included.

c 1982-1984.

d Local tax revenues are included.

Source: International Monetary Fund, *Government Finance Statistics Yearbook*, vol. 9, 1985.

Table 10: **Tax Revenue**
(Percentage of GDP)

Country	1981	1982	1983	1984	1985
Bangladesh ^a	..	7.3	6.8	6.9	7.1
India	16.4	16.7	16.1	16.5	16.7
Indonesia	21.1	19.0	20.8	20.7	19.8
Republic of Korea ^a	16.1	16.5	17.5	17.0	16.7
Malaysia	23.4	22.0	24.3	23.2	24.4
Pakistan	13.7	13.3	13.5	13.9	12.8
Philippines	10.3	10.1	10.5	9.3	10.1
Sri Lanka ^a	16.7	15.5	16.2	19.4	18.9
Thailand	12.8	12.4	13.3	13.7	13.6

.. = not available.

a Central Government.

Sources: Various government documents and official statistics of the International Monetary Fund and the World Bank.

As discussed earlier, these countries have borrowed on a large scale to finance their developmental expenditures. In the process, they have accumulated a large stock of foreign and domestic debt. Once the stock of debt reaches a given share of GDP, the *net* flow of resources is likely to change direction. The higher the rate of interest and the more reluctant are lenders to keep lending, the more quickly will this change of direction occur. While in the earlier period the net flow of resources was from the lenders (both foreign and domestic) to the governments, in the later period it must be from the governments to the creditors. This occurs when the interest payments exceed the difference between new borrowing and amortization for existing debts. When this happens, in the absence of a contraction in non-interest spending, the ratio of tax revenue to GDP will need to rise so as to generate the fiscal resources to make these payments.²² For the foreign debt, there should also be a generation of surplus in the trade account.

Countries with low elasticity of their tax systems will find it more difficult to generate this fiscal surplus through automatic tax increases. They will have a greater chance of running into difficulties, especially if political constraints

22. In other words, either government spending or private spending must go down.

limit their action on the expenditure side in introducing discretionary changes aimed at raising taxes. It would, thus, be desirable for these countries to reform their tax systems to make them acquire a built-in elasticity greater than 1.0. The desirable size of the elasticity would itself depend, to some extent, on the rate at which the public debt is to be serviced.

The low elasticity of the tax systems of these countries is not an accident but it is, at least in part, the result of explicit policy actions. More specifically, in several of the countries considered, it is the consequence of the erosion of tax bases due to the proliferation of tax incentives granted to many activities. In some of these countries, over the years, the tax bases were reduced to small fractions of their potential values. Many of these incentives were granted to private investment and resulted in large subsidies to capital accumulation. A study of these tax incentives reported that "... giving large subsidies to capital to the extent of an overall net subsidy might be questioned on efficiency grounds. The net subsidy drives the required rate of return on capital below the investors' subjective rate of time preference, thereby creating incentives to over-investment ...".²³

Another study has calculated the effects of these tax incentives on the cost of capital faced by enterprises in some of these countries. The results are shown in Table 11. The table shows that in Indonesia and Malaysia, firms might have

Table 11: **Cost of Capital at Zero or Actual Rates of Inflation**
(Percentages)

Country	At Zero Rate of Inflation	At Anticipated Rate of Inflation	
		Ongoing firms	Pioneer firms
India	3.59	3.34	2.53
Indonesia	2.40	-1.80	2.60
Republic of Korea	2.91	7.82	6.60
Malaysia	1.50	-0.30	0.85
Pakistan	1.92	4.53	4.53
Philippines	1.90	0.88	0.98
Thailand	2.00	1.60	1.11

Source: Liam Ebrill, *Taxes and the Cost of Capital: Some Estimates for Developing Countries* (mimeographed, March 1984), Table 18.

23. See Nils J. Agell, *Subsidy to Capital Through Tax Incentives in the Asean Countries* (mimeographed, 1982), p. 32.

found an investment profitable even when the rate of return was negative. It is interesting to note that the country that has been most successful in the use of its capital, the Republic of Korea, is also that with the lowest subsidies. The cost of capital was much higher than for the other countries (see Table 11). Once again, we find that the role of the public sector has been an ambiguous one. On the one hand, it has contributed to a high level of capital accumulation; on the other, it has led to the inefficient use of costly resources. The implications of these policies for capital borrowed abroad are disturbing.

It should be noted that several of the countries (India, Indonesia, Philippines and Thailand) either have recently carried out major tax reforms or are in the process of doing so. These reforms would increase the elasticity of the tax system and reduce the role of these incentives to misallocate investment.

The Role of the Public Sector in Redistributing Income and in Stabilizing the Economies

It is difficult to deal in a systematic manner with the role of the public sector in redistributing income and in stabilizing the economies. The discussion here is, thus, limited to a few general observations.

Redistribution. Table 12 provides available statistics on income distribution for six of the countries. The Republic of Korea has the most even distribution although it should be noted that the data refer only to the urban population so that they are not strictly comparable with the other countries. In the Republic of Korea the highest 10 per cent had average incomes only 2.5 times the country's average, while the bottom 20 per cent had incomes about 40 per cent of the country's average. In the Philippines, on the other hand, the highest 10 per cent had average incomes of more than four times the country's average, while the bottom 20 per cent had average incomes of only about one fifth of the country's average.

In most of these countries the redistribution of income has been an objective that has received much attention on the part of policymakers. Little attempt, however, has been made to use the tax system for this purpose. For example, the role of personal income taxes and of taxes on wealth and property has been limited. In general, the governments have preferred to pursue the objective of redistribution through the expenditure side of the budget and through the regulatory route. To their credit, they have paid much more attention to the agriculture sector than has been the case in other countries.

One problem with the instruments used (e.g., rationing of basic products, subsidies to consumers, subsidies to producers, controlled prices of public utilities, public employment and credit subsidies) is that it is always very difficult to target them efficiently. The result has been that, in many cases, the main beneficiaries may not have been the very poor but individuals from higher

Table 12: Income Distribution Statistics for Selected Countries

Country	Year	Source	Coverage of Population (%)	Concept	Quartile Distribution					Highest 10 per cent
					1	2	3	4	5	
Bangladesh	1976/77	Survey	100	Household	6.2	10.9	15.0	21.0	46.9	32.0
India	1975/76	Survey	99	Family	5.0	9.6	14.1	20.9	50.4	34.9
Philippines	1971	Survey	100	Family	3.5	7.8	12.4	19.8	56.5	40.9
Republic of Korea	1981	Survey	Urban	Household	8.0	13.0	17.0	22.4	39.6	24.5
Sri Lanka	1980/81	Survey	100	Household	5.9	10.3	14.1	19.9	49.8	35.2
Thailand	1975/76	Survey	100	Household	5.1	8.2	11.7	17.9	57.1	42.8

Source: United Nations, *National Accounts Statistics: Compendium of Income Distribution Statistics*, Statistical Papers, Series M, no. 79 (New York: United Nations, 1985).

deciles of the income distribution. In fact, this seems to be the main thread that one finds in discussions of these programs. The truly poor benefited much less than they could have with better targeted programs. But to achieve a better targeting is always very difficult or very expensive administratively.

Stabilization. There have been implications for the stabilization of the economies of the countries under consideration, associated with both the large public spending on capital projects and the expenditure and other policies concerned with the attempts to redistribute income. One implication already discussed has been the accumulation of public debt, especially owed to foreigners.²⁴ The other has been the creation of fiscal imbalances that have in some cases grown very large and have forced the countries to rely on foreign borrowing in the absence of non-inflationary domestic sources. In India large domestic savings have been mobilized to finance, in a non-inflationary manner and without excessive recourse to foreign sources, relatively large fiscal deficits. In other cases, the financing of fiscal deficits has created more serious problems. Table 13 provides some estimates of the fiscal balances of the countries.²⁵ Once again, the Republic of Korea stands apart from the rest for having by far the lowest fiscal deficit and for having succeeded in reducing it over the years.

Concluding Remarks

This article has dealt with selected aspects of the role of the public sector in nine important market economies of developing Asia. These countries contain about one fourth of the world's population. In recent years, these were, with some exceptions, fairly successful economies when measured against standard criteria such as growth and inflation. It may, thus, seem presumptuous to pass judgment on the actions of their governments. Furthermore, there have been important recent changes in various areas in some of them. For example, several countries have introduced major tax reforms, have begun to liberalize their financial markets, and have begun to privatize their publicly held industrial enterprises. These changes are particularly desirable in the countries considered because, in spite of their diversity and levels of per capita income, all of them have dynamic private sectors and significant portions of their work force are highly skilled and market oriented. The idea that in these countries the government can do better than the private sector in providing entrepreneurial talent must be met with skepticism.

In spite of the important changes that have taken place, much remains to be done. At the risk of stating the obvious, I shall list, in general terms, actions

24. In some of these countries, total debt (domestic plus foreign) has reached very high levels.

25. These data are not strictly comparable since they may refer to different definitions of the public sector or of the fiscal deficit. They should be used only to observe trends over time.

Table 13: **Fiscal Balance**
(Percentage of GDP)

Country	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986 ^a
Bangladesh	-4.9	-4.6	-3.8	-3.6	-5.5	-4.7	-3.3	-4.8	-4.1	-3.3	-3.3
India	-4.6	-4.2	-5.9	-6.0	-6.5	-5.9	-7.6	-7.1	-8.3	-10.5	-9.3
Indonesia	..	..	..	1.2	2.1	-2.3	-4.9	-2.6	0.9	-2.9	-5.6
Republic of Korea	-1.4	-1.7	-1.3	-1.4	-3.2	-4.7	-4.4	-1.6	-1.4	-1.0	-1.6
Malaysia	-6.8	-7.1	-6.2	-3.2	-6.2	-14.9	-16.9	-10.6	-6.6	-5.9	-10.9
Pakistan	-9.5	-8.6	-8.0	-8.8	-6.2	-5.2	-5.3	-7.1	-6.0	-7.7	-7.8
Philippines	-1.7	-1.8	-1.2	-0.1	-1.3	-4.0	-4.3	-2.0	-1.8	-1.9	-4.7
Sri Lanka	-9.7	-9.9	-12.1	-11.9	-18.2	-12.4	-14.2	-10.8	-6.7	-9.6	-10.0
Thailand	-3.2	-3.1	-3.4	-3.4	-4.7	-3.2	-5.8	-4.1	-3.7	-5.1	-4.6

.. = not available.

^a Preliminary.

Sources: Various government documents and official statistics of the International Monetary Fund and the World Bank.

that, in my judgment, the governments of these countries could take to bring their role closer to an optimum.

First: As in all countries, it is important that governments provide stable laws and institutions. The "rules of the game" should be clear to all citizens. When these rules are clear, there is less scope for corruption and for their arbitrary application to benefit particular groups or individuals.

Second: As economies develop, there is progressively less need for intervention in, and regulation of, economic activities. Excessive intervention increases the cost of doing business and generates parallel or underground markets for, among other things, goods, credit and imports. Thus, a progressive and orderly dismantling of the many regulations that apply, for example, to investments, imports and credits should take place.

The governments of the countries have been particularly active in regulating the allocation of credit. For example, net government lending reached almost 5 per cent of GDP in the Republic of Korea in 1981 (before starting to fall), it reached almost 7 per cent of GDP in Malaysia in 1982, and was 2.1 per cent of GDP in Sri Lanka in 1984. Also, through credit policies, incentive legislation, and regulation of investments, the governments have played too large a role in determining the area where investment should go, and too large a role in determining the composition of imports and even the users of these imports. Quotas and high tariffs should give way to adjustments in the balance of payments that come from changes in the exchange rate and changes in the macroeconomic policies of the countries. Equally important, government controls on domestic prices should be reduced to the minimum.

Third: Tax systems should be simplified in all the countries. They should reduce, if not eliminate, the incentives that have been provided to particular investments. Broader bases with lower rates should be the objective.

Fourth: The various factors that have brought about low returns to investment should be corrected. In particular, a concerted effort should be made to maintain the existing infrastructure in good condition and to utilize fully the existing capital structure. It is not desirable to add to capital while the existing capital is not fully or efficiently utilized. The privatization of public enterprises which are not in areas of natural monopolies should continue. If these changes bring about a lower capital accumulation, but a better use of existing capital, the countries will benefit from the change since the rapid capital accumulation that has taken place has brought about a rapid accumulation of foreign debt and increasing interest payments.

Optimizing the Role of the Public Sector: Constraints and Remedial Policies

Leo Pliatzky*

How should public sector industries be run? Does it matter if they make a loss? Is it possible for them to be run efficiently when governments are involved? Is privatization the only solution? In Britain, this debate is largely closed, for the time being at least, but I sense that these questions are live issues in many of the developing countries of Asia.

The public sector as a whole embraces not only the state-owned industries of a commercial or quasi-commercial character, but also the free or subsidized public services such as education or health care. However, the role and problems of the British welfare state are of little interest to the development-minded. To the extent that they see any relevance in the experience of Britain, the first country to industrialize, those concerned with development discern it rather in the reasons why Britain, having undertaken nationalization for so long, is now venturing into privatization.

Britain Since 1979

Yet there should be some relevance in what has happened in Britain on both fronts — the publicly owned industries and the public services — in the past eight years since the Conservative government of Margaret Thatcher, dedicated to rolling back the frontiers of the state, first came to office. One major element in the government's crusade was a drive to cut expenditure on the public services and, thus, to reduce taxation. Another main element, but much less prominent at the beginning, was the privatization of the nationalized industries. An important element has also been the sale of council houses to their tenants on favorable terms; thus conferring the status of home ownership, with its middle class connotations, on a large number of former tenants living in local authority estates and generally regarded as traditional supporters of the Labour Party.

However, after eight years, public expenditure has increased year by year, and the attempt to cut it has been given up. In 1984 the Treasury issued a Green

* Formerly Second Permanent Secretary, Treasury, United Kingdom, with responsibility for the planning and control of public expenditure. Later, Permanent Secretary, Department of Trade.

Paper (a consultative document, as distinct from a White Paper setting out firm plans) which floated a strategy of stabilizing public expenditure at its new high level, so that the whole of the future increase in national income could be allotted to tax reductions, but this too had to be modified.¹ The present and more realistic strategy is to seek to reduce public expenditure as a percentage of the national income, which means that, in absolute terms, a limited continuing increase has now been accepted.²

There have been individual cuts, some of them drastic, in a number of public expenditure programs. But these have been outweighed by planned increases in certain other programs, primarily defense and law and order, by an unplanned increase in the "open-ended" program of unemployment benefits — open-ended because the bill is bound to rise with the increase in unemployment, since those at the end of the dole queue cannot be turned away on the grounds that all the money in the kitty has been used up — and by the relentless impact of demography on other social security programs and on the National Health Service. The cost of advances in medical technology has added further to the expense of the Health Service. And there are the farmers who, as in the rest of Europe, Japan, the United States or elsewhere, apparently claim a divine right to protection from market forces, whether by import restrictions or financial support or both. There was a lack of realism, not uncommon in new governments, in the failure to take account of all these pressures at the outset.

In contrast, the sale of council houses has proved highly popular, while the program of privatization has succeeded beyond all expectations and has been scaled up in time. The program has been greatly helped by a stock market boom. As the market price of shares sold in industries such as British Telecom, British Gas and British Airways has soared above the issue price, a whole new class of small investors has been introduced to the mysteries of dabbling in shares and the joys of making money without actually working.

The Market and Non-Market Sectors

This experience illustrates an important point. These industries, whether in the public or the private sector from the point of view of ownership, are in the *market* sector of the economy. They can be transferred from public to private ownership because they are supplying tradable goods and services to meet a market requirement and, though governments sometimes run them at a loss, they are capable of making a profit.

The public services, on the other hand, are taken out of the market. Some services, such as defense, or law and order, or street lighting, are defined as "public goods", which can only be provided and enjoyed collectively and are

1. *The Next Ten Years: Public Expenditure and Taxation into the 1990s* (Cmnd 9189, March 1984).

2. *The Government's Expenditure Plans 1986-87 to 1988-89*, vol. I (Cmnd 9702-I, January 1986).

equally available to everyone. In their nature, they cannot be privatized. In other cases, such as health care and education, which do not quite satisfy this definition, there are nevertheless externalities; the benefits accrue not just to the individual but to society as a whole. The market by itself would not provide a secure, disease-free, educated society, in which the edge is taken off the most acute poverty; this is sometimes called market failure, but the term is misleading, since it is not the function of the market to provide non-marketable services such as defense or public health or support for the old and infirm.

The difference between private and public ownership is in a sense less basic than the difference between being in the market sector and in the non-market sector, but this difference is eroded if governments choose to run state-owned industries as quasi-public services. A similar though slightly different terminology is used by Aylen, who classifies public enterprises in developing countries as conforming to either the "market model" or the "bureaucratic model".³ The market model is characterized by such features as financial autonomy, performance monitored by outputs, and potential competition from domestic rivals and imports. In the bureaucratic model, finances overlap with the national budget, and losses are accepted for social reasons.

Aylen suggests that the market model is to be found in Asian developing economies with a tradition of family-owned enterprise and probably a history of occupation by Japan in the past. "In contrast", he says, "nations emerging from British colonial rule have often seen government institutions as the appropriate route for development Government bureaucracy rather than the autonomy of the market is responsible for development decisions".⁴ (However, he does not blame the British Empire for the bureaucratic model everywhere in the world. In Britain itself the nationalized industry regime over the years has combined elements of the bureaucratic model with elements of the market model, the balance between the two varying from one industry to another and one government to another, with British Petroleum, while in government ownership, providing a unique example of the pure market model.)

Aylen compares two publicly owned steel works in two different Asian countries, one of them (in the Republic of Korea) conforming to the market model and, in his phrase, "arguably the world's lowest cost integrated steel producer". The other steel works, conforming to the bureaucratic model and located in a country which I leave the reader to identify, "has outdated plant, is slow to commission new projects, is heavily protected from imports, and has a labour productivity per worker perhaps a tenth that of its South Korean rival. A significant part of the overmanning...is due to a superstructure of administrators ...".⁵

The criticism in such cases is not of public ownership, for which there may be historical or other reasons in developing countries, such as the need for the

3. Jonathan Aylen, "Privatisation in Developing Countries", *Lloyds Bank Review* (January 1987).

4. Aylen, *op. cit.*, p. 20.

5. Aylen, *op. cit.*, pp. 19-20.

state to mobilize the capital required for the investment, but of running industrial enterprises as non-market public services. But in practice this comes close to a criticism of public ownership as such, since there are not many countries capable of operating the market model as the Koreans are reported to do in this case.

There appear to be more instances of the bureaucratic model than of the market model in the Asian developing countries. To a number of them, state regulation of industry, including price control and subsidization of state enterprises, seems to be the natural order of things. Therefore, having summarized earlier in this article the reasons why some services cannot be left to the market, let us look at the difficult questions which have to be answered when functions are taken out of the market, whether true public services or industrial enterprises run as quasi-public services. First, what functions should be taken out of the market? Second, how much should be spent on the non-market sector in total, bearing in mind that this is not solely a budgetary problem but also a resource problem, since the resources for the non-market sector have to come from the market sector?⁶ Third, how are priorities to be decided — how to determine the amount to be allowed for each program, when government decision has been substituted for market forces and there is nothing equivalent to consumer demand and the profit motive to resolve the choices which have to be made? Fourth, how can efficiency and value for money be secured in the management of resources in the non-market sector when the disciplines of competition and profit and loss do not apply?

21

How to Control the Public Sector

Are there any golden rules which can be prescribed for coping with these problems? Since the remit is to optimize the role of the public sector and to prescribe remedial policies for the constraints on an optimal result, let us list a few guidelines.

First, do not take any service out of the market unless it is a clear case of a "public good" which the market cannot provide or unless there are clear externalities. Government should not try to do things which the market can do instead, and above all it should not try to do things which the market can do better.

Second, put a limit on total public expenditure (including industrial subsidies

6. See Leo Pliatzky, *Paying and Choosing: The Intelligent Person's Guide to the Mixed Economy* (Oxford: Basil Blackwell, 1985). To illustrate the point, let us assume a very underdeveloped country in which the market sector consists of peasants, producing rice, bananas and such products for their own consumption and for sale, and the non-market sector consists of soldiers, providing defense, law and order and government generally. The number of soldiers that the country can afford is limited by the amount of rice, bananas, etc., which the peasants produce and the proportion of it which can be taxed away from them or simply confiscated for the use of the soldiers. The same conclusion holds good for less oversimplified models and also in reality.

among other things) which should be related to the resources and taxable capacity of the market sector, and stick to it through thick and thin. However, this is easier said than done. The pressures for public spending may be greater at later rather than earlier stages of development. The political pressures which frustrated Margaret Thatcher's planned cuts came not only from the poor and the Left but also from her own middle-class supporters.

Third, there must be some sort of competition between the various candidates — such as defense, education and health — for allocations of public expenditures within this limit. Cost-benefit analysis can be an important tool for assessing individual projects, or for choosing between different projects in the same program; for example, in comparing one road scheme with another, but it is of limited use in determining relative priorities between programs with different objectives, such as defense and health care. There is no alternative to a process of politico-economic judgment, but there are procedures for rendering the judgments well informed rather than ill informed, and for making the choices a little more rational rather than less.

Fourth, management techniques must be developed for securing efficiency and value for money in the absence of the profit motive and the criterion of profit and loss. The range of instruments over the public services as a whole, but varying from case to case, includes: cash limits; manpower limits; staff inspections; periodic reviews of functions and organization; external and internal audit; comparative studies of costs and outputs; contracting out ancillary services by competitive tender, for example, refuse collection in local authorities or cleaning and laundering in hospitals; and performance indicators and performance measurement, which can be important in the management not only of public services but also of monopoly industries, where profit alone is an insufficient indicator of efficiency when there is a captive market and no competition.

These are not theoretical or academic principles, but based on my years of involvement as a practitioner in these matters. The concept, for instance, of putting a limit on public expenditure may seem rather obvious but it was in fact an innovation during my time. Part of the problem is that room has to be found for new developments and new decisions during the year and, unless effectively controlled, these can make a nonsense of any pre-determined total. Under the British system, provision for such contingencies is made by means of a reserve in the public expenditure total, but at one time this reserve for contingencies was regularly being exceeded. One reform made during my time in the Treasury was to put a limit on the reserve itself and to require all new allocations during the year to be met within this limit or to be financed by savings in other items.

The present Conservative government, attempting to remedy the failure of its initial public expenditure limits, has introduced a new instrument for enforcing competition between the various bids for additional expenditure, in the

shape of a Cabinet committee popularly known as the Star Chamber, after the original Star Chamber which in olden times was responsible for the torture and execution of enemies of the state. In this more enlightened age, the new body, chaired by Lord Whitelaw, Margaret Thatcher's second in command, has the painful duty of cutting down expenditure bids to fit within the approved total and of sealing the fate of those spending ministers whose bids are rejected in favor of those from more fortunate colleagues. These issues can be a matter of life or death to the ambitions of spending ministers, though not, nowadays, to their persons.

The idea of a Cabinet committee with a somewhat similar function was explored earlier, during my time in the Treasury, but discarded at that time, partly because there was no available "Willy Whitelaw figure" to preside over such a body. This illustrates the point that the precise means of organizing such a competition and making the choices between priorities will vary according to the political context.

Enthusiasts for development may object to the idea that industrial development should have to compete for funds with other types of state expenditure. There may be a tendency to assume that, in the earlier stages of a country's development, any project with a development label attached to it should have absolute priority. If we are considering viable investments which can service the principal and interest of the capital involved, then there may well be mechanisms for financing them outside the budget for the public services, though within the limits of borrowing capacity. If we are considering infrastructure which contributes to development but does not produce a direct financial return, then surely all grant-financed projects must have to establish their priority on merit. And if we are considering subsidies for loss-making industries, which in the end have to be financed out of the same tax bill as the public services, is it self-evident that they should always have priority over, say, additional expenditure on education and training, or even that they make a greater contribution to development?

I was greatly struck by an article by Ohkawa, who attaches great importance to what he calls "social absorptive capability" as a factor in economic growth, in contrast to theories which draw a more mechanical connection between investment and growth.⁷ The following passage in his article seems to have relevance to Britain's relative loss of industrial pre-eminence as well as to the situation in countries at earlier stages of development: "A number of cost-benefit analyses for higher income countries give evidence that education can be a highly profitable investment. But more attention should be paid to the major role played by training near the point of use of skills and to learning-by-doing.... The larger the number of entrepreneurs, technicians, administrators, and semi-skilled people who are at work in an industry where innovations are taking place, the higher

7. Kazushi Ohkawa, "Japan's Development: A Model for Less-Developed Countries?", *Asian Development Review*, vol. 1, no. 2 (1983).

will be the level of absorptive capability. There will be greater ability to innovate and raise productivity further."⁸

It may therefore be asked whether, in the difficult task of stretching limited resources, the state has its priorities right in a country such as India, for whose aspirations one has so much sympathy, but of which an Indian commentator has written: "A third reason for unfulfilled potential is that the state has disregarded the constitutional directive for free and compulsory education. Two-thirds of Indians (and four-fifths of females) are still illiterate. Hence the progress achieved so far has been with only one-third of the country's human resources, investment in people neglected in favour of investment in bricks and mortar, plants and factories."⁹

Neither of these passages, of course, is intended to play down the indispensable requirement of capital investment for economic growth, but to stress the need for it to be effectively used. I should like also to emphasize again the distinction between investment which yields an adequate return and expenditure on enterprises which require continuing operating subsidies and are therefore a drain on resources and the budget.

How to Manage State Industries

Let me return now to the question of management techniques in the public services, on which increased attention has been focused in Britain in recent years. There is a downside to these developments, including an increase in the amount of management jargon in circulation. Performance measurement has come under criticism on the grounds that it tends to measure economy in providing a service, not satisfaction to the user of the service. Civil service trade unions claim that staff economies have been pushed to the point of understaffing. Contracting out can result in a lower standard of service as well as lower costs, especially if the policy is applied ideologically rather than empirically. Nevertheless, I am sure that, on balance, the increased awareness of the need for value for money in the non-market or non-commercial sector is to be welcomed.

But these techniques do not add up to an ideal way of running commercial enterprises. For them, given the choice between the two methods of allocating and managing resources — government decision and bureaucratic administration, on the one hand, and market forces, on the other — there have to be very strong reasons indeed for inflicting on oneself the problems inherent in the former method, thus forgoing the benefit of market signals in the allocation of resources and of profit as a motive for and *prima facie* criterion of efficiency.

It is particularly damaging when prices, the essential factor in bringing production into relation with the market requirement, are politically determined.

8. Ohkawa, *op. cit.*, pp. 56-57.

9. Nani A. Palkhivala, "A Passage to Progress", *The Times* (14 August 1987).

If the intention is to help the poor, it is an unselective and likely to be an expensive way of doing so. In Britain in the early 1970s, Edward Heath's Conservative government imposed a price freeze on the nationalized industries as part of its fight against inflation, but this had the opposite effect of encouraging wage inflation because the workers in those industries could press for higher wages without the unpopularity of inflicting higher prices on the general public and without having to pay higher prices themselves as users of their own products. The government found itself subsidizing the wage bills in those industries at the expense of taxpayers, many of whom were less well-paid workers in other industries. Lessons have been learned from that experience.

To put the issue at its simplest: Which of the two Asian steel enterprises makes the greater contribution to its country's development, the high productivity "market model" steel works in the Republic of Korea or the subsidized low productivity "bureaucratic model" steel works? It would be going too far to argue that no commercial enterprise should ever be subsidized. In many countries, public transport systems, for instance, are subsidized on grounds of externalities, such as relief to congestion on the roads. But once again let us attempt a few golden rules.

First, subsidization of commercial enterprises should be the exception; a reasonable return on capital should be the norm.

Second, any subsidy should be transparent, not concealed; its objective should be clearly defined, and its effectiveness should be periodically assessed in relation to that objective.

Third, wherever possible a time limit should be put on the subsidy; in any case, it should be periodically reviewed.

Fourth, put industrial managers in charge of the enterprise, set them a financial target, such as a positive rate of return or at least a break-even after subsidy, and give them maximum operational freedom to achieve it.

Fifth, the budgetary cost of industrial subsidies should be met, as has already been said, within the planned total for public expenditure and should have to compete with other candidates for allocations from the total.

Some administrators in countries where ministers are deeply involved in industrial projects may feel that such guidelines fail to take account of the political pressures, and that political decisions cannot be fettered by any rules. Certainly, in a democracy, it is for ministers to make the value judgments and take the political decisions but, except in the most arbitrary and capricious of regimes, this need not necessarily rule out an objective assessment of the financial and economic aspects as part of the decision-making process. Much will depend on

the strength of the Finance Minister's position and what support the finance arm gets from the head of government.

The proposed list of golden rules is in fact distilled, not from theory, but from experience of both the financing of publicly owned industries and of government financial assistance to private sector companies. I recollect, for instance, that the pressures for almost indiscriminate financial support were particularly strong in the early days of the Labour government which came to office in Britain in 1974, committed to a "social contract" with the trade unions. Even in that populist atmosphere, however, it was found useful and feasible to agree to a detailed report in which, though the general tone was much more interventionist than would be acceptable to today's government, and a far higher priority was given to preserving jobs and avoiding redundancies, factors such as the company's future viability and the constraints on public funds featured prominently.¹⁰ The point is not that this particular set of criteria would provide a useful model to copy — on the contrary, it belongs to its time and would now be of interest only to historians of that period — but that the very idea of establishing rules or criteria in this politically charged field of policy need not necessarily be dismissed as unrealistic.

It has to be said that all such rules are systematically broken by the industrialized countries, including those of the European Economic Community (EEC), in what they treat as a special case, that is, agriculture, but with what dire results! In all these countries, government intervention is designed to keep prices high, not low, unlike Britain's former relatively rational policy which has now been subsumed in the EEC's Common Agricultural Policy. Paradoxically — or so it may seem — European farmers, a high proportion of whom own and work their own farms, have responded all too efficiently to artificially high prices. The results are an agricultural budget out of control, mountains of surplus food going to waste and lakes of surplus wine and olive oil, and great strains placed on international relations through protection of home markets and disposal of stocks in other markets at knockdown prices.

But where governments intervene, as they have done in some African countries, to control agricultural prices at low levels in the interest of town dwellers, the result is depressed production and supplies withheld from the market. So agriculture is not such a special case after all but illustrates very well the dangers of political manipulation of prices, whether upwards or downwards.

A particularly dire warning is provided by the EEC's program of food aid supplied to poorer countries from surplus stocks. This has been described, in a report from the Community's auditors, as a "catalogue of disasters".¹¹ Shipments have taken place late or not at all. Consignments of food have been contaminated, unfit for human consumption and dangerous to health. The farmers who produced the food, impelled by the profit motive, responded rationally, after

10. *Criteria for Assistance to Industry: Report by an Inter-Departmental Committee* (February 1975).

11. Court of Auditors' special report on the quality of food aid, C219. See also *The Times* (September 1987).

all, from their point of view, to an irrationally high level of prices. But no one had any motive for efficiency in the disposal of the surplus stocks which had been bought up by the Community's institutions. This function was taken out of the market without the substitution of non-market disciplines such as those discussed above.

Nationalization and Privatization in Britain

Let me end with some reflections on Britain's experience in nationalization and denationalization or privatization. A certain amount of public enterprise came about for organizational or technological reasons rather than because of ideology. Much of it took place at municipal level in the first instance and was brought together at a later stage into industries operating on a national scale. Some enterprises began as government departments or as parts of departments and were later hived off as public corporations, e.g., the Post Office, the British Airports Authority and the Civil Aviation Authority. Some companies, in particular Rolls Royce under Edward Heath's Conservative government, and British Leyland under Harold Wilson's Labour government which succeeded it, were acquired by government as rescue operations when they were in financial trouble.

But the great wave of nationalization took place after the Labour Party took office in 1945, with a working majority in Parliament for the first time, and committed by the Party's constitution to the common ownership of the means of production, distribution and exchange. A number of philosophical strands came together in this commitment; and, as I have written elsewhere: "The miseries of industrialisation ... provide the historical background. Since wealth and privilege went with the ownership of land and industry, it was natural to believe that the many who owned nothing would benefit from wider ownership."¹²

The ideology of the New Right — a belief in free markets and a wider distribution of private ownership of property (not common ownership) together with a conviction that no commercial organization can be fully efficient if government is involved in it — played an equally decisive part in the commitment to privatization by Margaret Thatcher's government, which broke with the consensus politics of previous Conservative governments. The monolithic public corporations and their equally monolithic trade unions were also held to have played a large part in wage inflation. Finally, as the privatization program has gathered momentum, the proceeds of sales of public assets came in handy in helping to finance the budget and made possible such limited cuts in income tax as have finally taken place, or at least have enabled these tax cuts to be made earlier than would otherwise have been possible.

The interesting thing is that, after the furious debates about public ownership in earlier decades, the political opposition to privatization crumbled fairly

12. Pliatzky, *op. cit.*, p. 81.

quickly, and the expected trade union resistance largely failed to materialize. At top management level, the industries were mainly concerned to keep their enterprises intact on privatization and to resist fragmentation into competitive elements; once that had been secured, the Boards looked forward to escaping from government control and joining the ranks of the self-perpetuating corporate oligarchies which dominate the modern industrial scene. Public versus private ownership (as distinct from public expenditure versus tax reliefs) has ceased, for good or ill, to be a live issue in British politics for the foreseeable future, though acute problems remain about the accountability and regulation of privatized monopolies.

In part, this result has been due to the appeal to sheer self-interest through the offer of shares which could be re-sold at a profit, but it also reflects a disillusionment with the impersonal public corporations, a form of so-called public ownership which in practice gave the public no sense of ownership at all. Moreover, though many did not go so far as to share the positive hostility of the New Right towards the public sector, there was probably a growing realization that the rise in living standards in postwar Britain owed little to nationalization and more to technological advance, to economic growth generally and public expenditure on the public services and the welfare state, and that some countries with less public ownership had made faster progress.

True, there is considerable and growing criticism of the post-privatization performance of those two great monopolies or near monopolies, British Telecom and British Gas. British Telecom, while making huge profits, has given unsatisfactory service in some respects; for instance, it often takes an unconscionable time for telephones to be installed and connected, while a public telephone in working order is a rarity in many city areas, where admittedly vandalism is a great problem. British Gas, though it has reduced gas prices since the fall in oil prices from their peak, has been slow to provide information to show whether the price reductions go as far as they should. There are question marks against the adequacy of the powers given to the two watchdog bodies, Oftel and Ofgas, which were created to monitor these two particular industries after nationalization. One particular industrial customer has tried but failed to get its nominee elected to the Board of Directors of British Gas in order to safeguard its interests. In consequence, there is now some debate whether competition should somehow be introduced into the electricity supply industry before it is privatized.

The government is clearly determined to press ahead with the rest of its privatization program, including not merely electricity supply but also that ultimate monopoly, the water supply industry. Nevertheless, the problems of these monopoly industries have not reopened the question of public versus private ownership as a general issue in British politics. If there is a live issue here, it is the question of *regulation* of monopoly industries. The possibility of renationalization, which in earlier decades was a genuine threat — the steel industry, in particular, was nationalized in the 1940s, denationalized in the 1950s and renationalized in the 1960s — does not feature much in current political

discussion and is not taken seriously, if only because the prospect of another Labour government in a position to carry out renationalization is remote. The idea of its reacquiring shares in the privatized industries at no more than the price at which they were privatized, with no allowance for subsequent changes in share prices, would be especially difficult politically, because a large number of small investors, as well as the financial institutions which own a high proportion of all the listed shares in British industry, would stand to lose.

The Conservatives thus appear to have achieved something akin to the objective of the 1974 Labour election manifesto, which spoke of an irreversible shift of wealth and power to working people and their families. But whereas that objective was not achieved, this government has achieved what at present looks like an irreversible shift of ownership of the market sector industries, as well as an extension of home ownership. If irreversibility is in fact achieved, it will have been secured, not by subverting the democratic process, but by effecting some shift in the political allegiances of at least some section of the electorate, or at any rate giving them some reason of economic self-interest to oppose a restoration of the former state of affairs, if that were feasible in any event. This factor must be taken into account together with the probably more substantial effect on political allegiances which must have arisen from the changing pattern of industry and employment.

No similar success has been achieved in cutting the total cost of the public services. How far the continued increase in this cost can be contained is likely to be a matter of unremitting trench warfare between the Treasury and the spending departments. Whatever success the Treasury has, it is unlikely to be irreversible. Public expenditure, rather than public ownership, is the issue for a country at Britain's stage of development.

I draw no lessons from this condensed piece of history for other countries, especially countries at other stages of development. Policy in other countries will be shaped by their own circumstances and history. But it is important, and difficult, to learn from history and not be a prisoner to it.

The Role of Government in Economic Development: The Korean Experience

Whang In-Joung*

Every government, regardless of political ideology, is engaged in the mobilization and allocation of resources, the stabilization of the national economy, and the promotion of technological innovation. Furthermore, a government plays diverse roles in development: as the guardian of political stability, which is a prerequisite for economic growth, as the instrument for law and order, as the major investor, as a source of development financing, as a powerful agent of social change, as a motivating force behind investment decisions by private business, and as a safeguard of social security. The relative priority assigned to these multifarious roles of government has varied over time to cope with the changing market forces and business environment.

This article focuses on the role of government in the Republic of Korea in the light of its experience in national development. It examines the role of government in economic development during the last 25 years and how that role has changed in the structural adjustment process, particularly during the 1980s.¹

The Perspective

The Korean economy has been one of the most rapidly growing economies in the world. With the successful implementation of a series of Five-Year Development Plans since 1962, it has been transformed from a largely agrarian, subsistence economy into a newly industrializing one. In 1986 the economy achieved a record performance in many respects. Gross national product (GNP) reached the \$100 billion level and Korea became the world's twelfth largest trading country. The GNP per capita increased to about \$2,300 as a result of a 12.5 per cent

* Vice-President for International Cooperation, Korea Development Institute.

1. A different view expressed is that whatever role the government might have played in the past two decades, a significant factor contributing to the rapid economic growth was the earlier sociocultural transformation led by the massive educational drive of Korean society. See Hahn-Been Lee, *Korean Development from the Sociocultural Perspective*, paper presented at the Korea Development Institute, International Forum on Industrialization and Urban-Rural Linkages, Seoul, 16-25 October 1984; and Hahn-Been Lee, "Bhotong Salamdul-ael Moosee Malla" (Don't Look Down on the Common People), *Chosun Ilbo*, 3 July 1984, p. 5.

growth of the economy in that year. For the first time in its recent history, the economy achieved a surplus in the current account amounting to \$4.6 billion by boosting exports to \$35.8 billion. It is also remarkable that the domestic savings ratio reached 33 per cent of GNP, which exceeded the total investment ratio. The rise in consumer prices, which has remained in the 2-3 per cent range since 1983, indicates that the economy has been stabilized. The recent performance in economic growth and stability suggests the great success in structural adjustment of the economy in the 1980s. These adjustment efforts are essential for continued economic growth and development in this decade and beyond.

The remarkable achievements of the Korean economy are attributable to appropriately chosen courses of actions, in particular: (i) an outward-looking development strategy, which ironically has led to self-supporting economic development by initially treading the path of "dependent growth"; (ii) human resource-based development taking full advantage of the country's competitive edge in labor-intensive industries at the initial stage of industrialization and in technology-intensive industries in the 1980s; and (iii) government-led development in the major aspects of the Korean economy and society. Furthermore, significant changes took place in government and politics in terms of political doctrines, leadership, and the bureaucratic system as a whole, particularly during the post-1960 period.

The role of government in the Republic of Korea in national development has changed over time. Most notable is the significant difference in its role between the pre-1960 and the post-1960 periods. To characterize this difference, it can be said that while the government invested heavily in social and institutional infrastructure at the initial stage of nation building in the 1950s, it was more concerned with economic development in the 1960s and 1970s. Economic planning was introduced in 1962 to stimulate national economic development. Export-oriented industrialization was adopted as the strategic course of development. This strategy consisted of a broad range of development activities such as establishment of physical infrastructure, construction of industrial parks, manpower training, research and development in science and technology, creation of a legal and administrative framework for industrial promotion, and incentives for export-oriented industries. Consequently, the "administratively planned growth" of the economy during the 1960s and 1970s was faster than the foreign-aid stimulated growth of the 1950s.² Thus, the government is seen as having played a significant role in industrial development and trade expansion over the last two decades through extensive planning and efficient policy implementation.

The government seems to have been adaptable enough to play a different role in the changed socioeconomic context of the 1980s, deviating from the previous roles played in the 1960s and 1970s. The role of the post-1980 government has been to promote private initiative and free and fair competition in the

2. Whang In-Joung, *Public Administration and Economic Development* (Seoul: Seoul National University Press, 1970), pp. 1-3 (in Korean).

open market. The government's flexibility has been a major factor, enabling the economy to achieve its outstanding performance in growth and development.

In discussing government role in economic development, one can consider the extent of government commitment to economic development and the methods of government intervention in the private sector. Government commitment can be discussed in terms of the commitment of the political leadership to economic development and functional realignment through the restructuring of organizations and institutions. Government intervention can be examined not only in terms of financial mobilization, which is reflected in national budgeting and public ownership of business, but also in terms of the means of exercising power in influencing economic behavior.

Extent of Government Commitment

Commitment of the Leadership to Economic Development.³ An analysis of major speeches, including annual messages and budget speeches, indicates that President Park Chung-Hee in the 1960s was more committed to economic development than President Syngman Rhee in the 1950s. President Park placed greater emphasis on industrial development in his speeches than his predecessor, utilizing vivid political symbols to obtain popular support for industrial development, and he displayed a higher level of personal motivation to achieve policy goals and targets. His political doctrine was symbolized by the terms "national modernization", "economic planning", and "administrative reform", while President Rhee's doctrine was characterized by "anti-communism", "antipathy toward Japan", and "patriotism".

During the 1950s President Rhee viewed economic development as part of economic recovery and as an extension of economic stabilization. While he considered economic planning a tool of the communist regime, he tended to depend on foreign aid for economic stabilization. However, he considered foreign loans to be detrimental to national sovereignty; he had grown up in the waning years of the Chosun Dynasty, when a loan from Japan provided a stepping-stone toward the eventual colonization of Korea. President Park, on the other hand, argued in his speeches that economic development was the main course of national modernization and that a self-supporting economy could not be achieved only by foreign aid. He stressed the need for purposeful planning in economic development and for attracting foreign loans at the early stage of industrialization.

The strong commitment by the political leadership to economic development motivated the government officials concerned to formulate realistic plans and to put greater effort into the successful implementation of planned targets.

As reflected in his leadership style and behavioral characteristics, the level of commitment shown by President Chun Doo Hwan in the 1980s seems

3. See also Whang In-Joung, *op. cit.*, pp. 167-175.

comparable to that of President Park in the 1960s and 1970s. Nevertheless, his conceptualization of economic issues and policy responses seems different from President Park's. His commitment to economic development, expressed by such symbols as "the second take-off" of the economy toward "the advanced motherland", tends to be pursued on the basis of economic stability. President Chun emphasizes the enhancement of the market mechanism through fostering free competition and enforcing fair trade. The gradual liberalization of imports has also received a boost under his administration. Toward these ends, President Chun proposed a social campaign against the "inflation-addicted mentality" of the people. In accordance with his emphasis, "private initiative" and "planning by inducement" have become the prevailing concepts of economic management in the shift toward more balanced development in the 1980s.⁴ Government regulation and planning by direction had been the dominant courses of policy action in the 1960s and 1970s.

Functional Realignment through Organizational Reform.⁵ An initial attempt at organizational reform was the introduction of the planning function with the establishment of the Economic Planning Board (EPB) in 1961. This organization is responsible for economic planning, national budgeting, foreign capital management, and statistics. In 1963 the role and functions of the Board were broadened when it was decreed that the Minister of EPB would concurrently hold the position of Deputy Prime Minister. In line with the greater emphasis on economic planning, the Office of Planning and Coordination was established under the Prime Minister in 1961. The organization has since been responsible for assisting the Prime Minister in evaluating and monitoring the performance of major projects and programs. At the ministry level, a Planning and Management Unit was organized under the Vice-Minister of each ministry in 1961. The Unit's responsibilities include annual implementation planning, progress review, monitoring, and gathering feedback information vis-a-vis the tasks of the ministry.

As noted above, both the economic planning and budgeting functions have been performed under the aegis of the Deputy Prime Minister. The rationale for this arrangement, in theory, was originally to narrow the gap between planning and implementation. In the early stages, however, communication between the Planning Bureau and the Budget Bureau was not as smooth as hoped. To facilitate communication and promote mutual understanding, EPB experimented with exchanging middle-level administrators between the two bureaus beginning in 1966. It indeed helped the planning officials to learn about financial feasibility considerations and allowed budgeting officials to become familiar with the implementation requirements of projects.

4. Whang In-Joung, *National Management Ideology and Economic Performance in the 1980s* (Seoul: Korea Development Institute, 1987) (in Korean).

5. See also Whang In-Joung, "Leadership and Organizational Development in the Economic Ministries of Korea", *Asian Survey*, vol. 11, no. 10 (October 1971), pp. 992-1004.

During the early 1960s some senior officials in economic ministries were recruited externally from the military and the universities to infuse the bureaucracy with rational values and development philosophy. In the latter part of the 1960s, however, senior bureaucrats in the economic ministries were usually products of the interministerial flow of administrators, i.e., the horizontal transfer of senior officials from one ministry to another, and the diagonal transfer of administrators from one ministry to another through promotion to a higher level. This pattern of transfer implies that the EPB was the primary "enclave" of elite formation in the economic ministries. The diffusion of EPB-oriented senior administrators into other economic ministries tended to infuse planning values into the bureaucracy and, thus, assure implementation in accordance with planning.⁶

The organizational reform and behavioral transformation produced a bureaucratic environment in which administrators were stimulated to participate actively in planning and implementation that was consistent with the national plan.

While the basic framework of organization and subcultures still remains in the 1980s, various specialized policy research institutes have been established since 1970 with the financial sponsorship of the government in order to strengthen the policy planning function. They include the Korea Development Institute (KDI) under EPB, the Korea Institute for Industrial Economics and Technology (KIET) under the Ministry of Trade and Industry, the Korea Research Institute for Human Settlements (KRIHS) under the Ministry of Construction, the Korea Rural Economic Institute (KREI) under the Ministry of Agriculture and Fisheries, the Korea Institute of Population and Health (KIPH) and the Korea Women Development Institute (KWDI) under the Ministry of Health and Social Affairs, and the Korea Education Development Institute (KEDI) under the Ministry of Education. In the field of science and technology, there are many research institutes that are fully sponsored by the government.

Observation suggests that "particularism" is also prevalent in the pattern of policymaking. The government tends to apply policy action to a limited number of clients or particular problem area in a specific situation. This method of governing has been criticized as a negative behavioral characteristic found in most developing countries. Although the particularistic approach certainly helps in solving problems, it can fuel corruption if bureaucrats abuse individual discretion.

Mechanisms of Government Intervention

The extent of government intervention was officially delineated in the First Five-Year Economic Development Plan. The concept of a mixed economy adopted by the Plan was defined in terms of "guided capitalism" in which "the principle

6. Whang In-Joung, *Public Administration and Economic Development* (Seoul: Seoul University Press, 1970), pp. 186-189.

of free enterprise and respect for the freedom and initiative of private enterprise will be observed, but in which the government will either directly participate in or indirectly render guidance to the basic industries and other important fields".⁷

In the Second Five-Year Plan, however, the government abandoned the term "guided capitalism" in expressing its own role partly because the connotation of this term created misunderstandings of the government's intentions. Instead, the role of the private sector seemed to be relatively more emphasized than before stating that "the principles of market economy will be observed in order to ensure smooth operation of the national economy". Nonetheless, the government made its position clear by stating that "it will intervene in the economy when necessary in order to maintain economic efficiency".⁸

Since the Third Five-Year Plan (1972-76), the explicit statement on the extent of the government's role has been deleted because it was felt that such a description tended to sow misunderstanding among domestic and foreign businesses about the true nature of the government's economic ideology. Nevertheless, the government's role continued to be performed primarily through planning by direction, and economic planning was more concerned with public sector activities throughout the 1960s and 1970s.

In the 1980s, however, the government has tried to diminish its role, making it more passive in nature in accordance with the new philosophy of "small government" in a relative sense. It now intervenes primarily to encourage private initiative in economic activities and to promote free and fair competition in an open economy.

In a mixed economy with partial economic control by the government, two modes of government control are applied: (i) direct control, through which the government undertakes certain activities by itself; and (ii) indirect control, through which the government stimulates private initiative and participation in certain economic activities. In performing its role, the government utilizes two major instruments: (i) finances made available primarily through taxation; and (ii) power stemming from national sovereignty. By combining the two variables, namely the *mode* of control and the *instrument* of intervention, one can visualize four categories of government intervention: government budgeting, public enterprise, regulation, and inducement.⁹

National Budget.¹⁰ Through the national budgeting process, the government played an important role in the mobilization and allocation of resources

7. Republic of Korea, *Summary of the First Five-Year Economic Development Plan, 1962-1966* (Seoul: Government Printing Co., 1962), p. 28.

8. Economic Planning Board, *The Second Five-Year Economic Development Plan 1967-1971* (Seoul: Government Printing Co., 1965), p. 27.

9. For the typology and conceptual clarification, see Whang In-Joung, "Ideological Premise of Economic Planning in Korea", *Korean Journal of Public Administration*, vol. 8, no. 1 (April 1970), pp. 174-180 (in Korean).

10. See also E. Mason et al, *The Economic and Social Modernization of the Republic of Korea* (Cambridge: Harvard University Press, 1980), pp. 306-315.

throughout the 1960s and 1970s. The ambitious increase in government spending in 1961 and 1962 and the resulting budget deficits contributed to inflation. To stabilize the economy, government spending was drastically reduced from 21.6 per cent of GNP in 1962 to 13 per cent in 1964. Thereafter, the resumption of growth in government spending was gradual and consistent with the increase in revenue, thus avoiding serious inflationary pressure. Except for the cutback period, the proportionate level of government expenditures was fairly constant in the range of 18-21 per cent of GNP.

The administrative competence of the government was clearly reflected by the increase in tax revenues that occurred after the establishment of the Office of National Tax Administration in 1966. Accordingly, the amount of government expenditure also increased so that the state could assume the role of development investor. Non-defense spending rose steadily from 11.4 per cent of GNP in 1957 to 15.7 per cent in 1962. It was cut back to 9.5 per cent in 1964 but then increased to an average of 14-16 per cent, where it remained throughout the late 1960s and 1970s (see Table 1).

Specifically, spending for social and economic services rose sharply to over 10 per cent of GNP, while expenditures on general services and defense as a percentage of GNP dropped. The developmental role of the government in the national budgeting process was demonstrated by the significant shift in the budgetary structure after the mid-1960s. The government moved from a position of net dissaver to that of net saver after 1964 as a result of the curtailment of government consumption and increase in government revenues. Accordingly, fixed investment in the public sector expanded from approximately 4 per cent of GNP in 1963-1965 to about 6 per cent of GNP on average during the period from the late 1960s until the 1980s. Government consumption remained at between 9 per cent and 11 per cent of GNP in spite of increasing demand, while government savings and investment contributed significantly to putting the economy on a growth path (see Table 2).

The relatively efficient use of the budget by the government in playing its role in resource mobilization is attributable to the improvements in tax administration, which protected tax collectors from political interference. In addition to the familiar techniques for strengthening tax enforcement — such as tax audits, tighter supervision, and public campaigns — the Tax Office adopted a system of tax collection targets or quotas, by geographic area and tax items, that included rewards and penalties to officials for exceeding or falling short of the targets.

The government also made efforts to implement budgetary reforms by establishing the Program Budgeting System in 1962 and the Planning-Programming Budgeting System in 1968.¹¹ Although their technical limitations prevented them from being implemented successfully, both proposed systems

11. For managerial and theoretical implications of budget reforms in Korea over the period, see Whang In-Joung, "Comparison between PPBS and Line-item Budgeting", *Korean Journal of Public Administration*, vol. 7, no. 1 (April 1969), pp. 223-234 (in Korean).

Table 1: Government Expenditures, 1955-1985
(Percentage of GNP)

Year	Non-Defense	Defense	Total
1955	7.9	4.5	12.4
1956	6.6	6.1	12.7
1957	11.4	5.7	17.1
1958	12.2	6.2	18.4
1959	13.2	6.3	19.5
1960	13.8	6.0	19.8
1961	15.4	5.6	21.0
1962	15.7	5.9	21.6
1963	11.8	4.2	16.0
1964	9.5	3.5	13.0
1965	10.5	3.7	14.2
1966	12.4	3.9	16.3
1967	12.7	3.9	16.6
1968	14.7	3.9	18.6
1969	16.0	3.9	19.9
1970	14.9	3.7	18.6
1971	13.5	4.2	17.7
1972	13.2	4.4	17.6
1973	12.1	3.4	15.5
1974	13.9	4.0	17.9
1975	16.4	4.4	20.8
1976	13.2	5.1	18.3
1977	14.4	5.2	19.6
1978	13.0	5.4	18.4
1979	14.0	5.0	19.0
1980	15.8	6.3	22.1
1981	17.3	5.9	23.2
1982	15.1	6.3	21.4
1983	13.8	5.7	19.5
1984	13.6	5.3	18.9
1985	14.3	5.3	19.6

Sources: Bank of Korea, *National Income Accounts 1984* (Seoul, 1984); Bank of Korea *Monthly Bulletin* (Seoul, April 1986).

Table 2: Government Consumption, Savings, and
Fixed Investment, 1955-1985
(Percentage of GNP)

Year	Consumption	Savings	Fixed Investment
1955	8.8	-2.3	2.0
1956	9.2	-2.9	2.0
1957	10.8	-3.0	4.1
1958	12.8	-3.1	3.6
1959	14.2	-2.7	3.8
1960	14.5	-2.0	3.3
1961	13.6	-1.8	2.8
1962	14.0	-1.4	5.4
1963	10.9	-0.3	3.5
1964	8.5	0.5	3.4
1965	9.3	1.7	3.9
1966	10.0	2.8	4.8
1967	10.2	4.1	4.9
1968	10.4	6.3	6.4
1969	10.3	6.2	7.8
1970	10.4	7.0	6.3
1971	9.9	6.0	5.8
1972	9.9	3.6	5.3
1973	8.3	4.0	5.0
1974	9.2	2.2	3.9
1975	9.7	3.9	6.6
1976	10.2	6.2	4.9
1977	10.3	5.3	5.9
1978	10.2	6.1	5.3
1979	9.8	6.9	5.8
1980	11.6	5.4	4.5
1981	11.9	5.6	4.3
1982	12.2	6.1	4.6
1983	11.4	7.2	4.7
1984	10.7	7.1	4.8
1985	10.8	6.9	4.7

Sources: Bank of Korea, *National Income Accounts 1984* (Seoul, 1984); Economic Planning Board, *Major Statistics of Korean Economy* (Seoul, 1986).

reflected the government's effort to develop a rational budgeting procedure that accorded with planning to the greatest possible extent.

All in all, the role of government through national budgeting in the 1980s has tended to be rather stable, held at a certain level to represent a relatively small government. The basic premise of that role is that the market mechanism will become more efficient in resource allocation for economic development once the economy matures.

Public Enterprise.¹² In addition to direct intervention through financial instruments in the form of national budgeting, the government has also utilized public ownership of businesses to indirectly exercise influence upon business activities. During the 1960s the government owned independent public enterprises controlling many industries, including electricity, oil, coal, tungsten, mining development, steel, fertilizer, shipbuilding, air transportation and tourism. Some of these enterprises were newly established during the 1960s, while existing public firms were expanded through additional government investment.

Public enterprises constituted a leading sector in the national economy in that they grew substantially more rapidly than the economy as a whole. The number of public sector enterprises increased from 52 in 1963 to 108 in 1972. Because of the gradual privatization policy of the 1980s, however, the number fell to 90 by 1984. Their sectoral share of value-added also increased from 7 per cent of gross domestic product to 9 per cent during the 1963-1972 period, remaining at about the 9 per cent level in the 1980s.¹³

During the initial period of economic take-off, public enterprises created "forward linkage" effects, transmitting growth to other industries. Other significant roles played by public enterprises were represented by their contributions to capital formation, value-added, employment and technological development (see Tables 3, 4, and 5).¹⁴

The government's purposes in operating public enterprise have been to promote basic industries or public infrastructure activities that required capital-intensive technology and to undertake large-scale business operations under monopolistic or oligopolistic conditions. An additional motive for public ownership has been to cope with market failures involving entrepreneurial inadequacies, the imperfect capital market, shortage of market information, and unwillingness by the private sector to bear the risk.

Korean public enterprises seem to have been relatively cost-efficient, compared with their counterparts in other developing countries, over the 1962-1986 period. Although they were less efficient than comparable Korean private firms,

12. See also Leroy Jones and Il SaKong, *Government, Business, and Entrepreneurship in Economic Development: The Korean Case* (Cambridge: Harvard University Press, 1980), pp. 148-165.

13. For the period until 1972, see Leroy Jones, *Public Enterprise and Economic Development: The Korean Case* (Seoul, KDI Press, 1976), pp. 73-74; for the rest of the period, see Song Dae-Hee, "The Role of the Public Enterprises in the Korean Economy", paper presented at the Joint KDI/CHIER Conference on Industrial Policies, 21-22 November 1985.

14. Song Dae-Hee, *op. cit.*

Table 3: Korean Public Enterprise by Type (1984)^a

Type of Public Enterprise	Characteristic	Number of Public Enterprises	Employment ('000)	Budget (\$ million)	Sales (\$ million)
Government Enterprises	Government department type (e.g., Office of Monopoly, Office of Railroads)	5	78 (27.9%)	4,514 (15.3%)	3,857 (19.0%)
Government-Invested Enterprises	Government holds at least 50 per cent of stock (e.g., Korea Development Bank, Korea Electric Power Corporation)	25	134 (47.9%)	15,736 (53.5%)	9,642 (47.5%)
Subsidiaries of Government-Invested Enterprises	Indirect government investment through government-invested enterprises	54	41 (14.8%)	3,065 (10.4%)	2,705 (13.3%)
Other Government-Backed Enterprises	Government holds less than 50 per cent of stock	6	27 (9.5%)	6,127 (20.8%)	4,104 (20.2%)
Total		90	280 (100%)	29,442 (100%)	20,298 (100%)

^a Budget is for fiscal year 1985.

Source: Economic Planning Board.

Table 4: Growth Rate of Value-Added and Employment of Government-Invested Enterprises
(Percentages)

Period	Growth Rate of Value-Added		Growth Rate of Employment	
	All Industries	Government-Invested Enterprises	All Industries	Government-Invested Enterprises
1982-1983	9.5	25.7	0.6	5.3
1983-1984	7.5	24.1	-0.7	3.3

Source: Song Dae-Hee, "The Role of Public Enterprises in the Korean Economy", paper presented at the Joint KDI/CHIER Conference on Industrial Policies, 21-22 November 1985, p. 20.

Table 5: Public and Private Sector Shares of Gross Domestic Capital Formation
(Percentages)

Item	1963	1970	1975	1980	1981
Gross Domestic Capital Formation	100.0	100.0	100.0	100.0	100.0
Public Enterprise	31.7	18.9	33.2	27.6	30.7
Government	9.5	19.1	11.6	7.0	15.3
Private Enterprise	32.0	42.2	31.9	41.5	33.7
Private Household	26.8	19.8	23.3	23.9	20.3

Source: Song Dae-Hee, "The Role of Public Enterprises in the Korean Economy", paper presented at the Joint KDI/CHIER Conference on Industrial Policies, 21-22 November 1985, p. 15.

the public-private efficiency gap was relatively small. In order to bridge this gap, the government introduced a set of management improvement measures in its revision of the Government-Invested Enterprise Management Act in 1984. The new enactment was intended to increase the autonomy of public enterprise management, to institutionalize performance evaluation standards linked with an incentive system, and to encourage the separation of the policymaking function from the executive function.¹⁵

Regulatory Measures. In addition to the financial instrument, the government has utilized power and authority to directly influence the economic behavior of the private sector. One such case was the enactment of the Price Control Act of 1961, which used ceilings to control the prices of five essential commodities: rice, barley, coal, anthracite, and fertilizer. When inflationary pressure increased after the failure of the currency reform (devaluation) in June 1962, price ceilings were again introduced to cover nine other commodities, including flour, beans, beef, pork, steel bars, and plate glass. The prices of four other items were added to the list of items under price control: eggs, cotton material, cotton yarn, and cement. Also controlled were the rates of public utilities — such as the railways, the postal, telephone, and telegraph services, and electricity — which were set by the Public Utility Rates Review Committee. Thus, about 53 per cent of total economic transactions, in terms of the weights applied in the estimation of the wholesale price index, were directly under the government price control administration in 1963.

Price controls were neither effective nor efficient, however, because of administrative difficulties in surveillance as well as market distortions such as black-market trading, quality declines, and sales avoidance. Consequently, the price ceiling system was gradually abolished from late 1964. Some items remained under government control, but in a different way. Their prices were subject to authorization by government ministries; one device was cooperative pricing, by which prices were determined through an agreement among the producers with guidance rendered by the government. In 1966 some 40 per cent of total economic transactions, in terms of weights applied to estimation of the wholesale price index, was controlled either directly or indirectly by the government.¹⁶ Thus, direct price control by the government for economic stabilization tended to become less extensive because of the high administrative costs associated with direct control and also because the financial stabilization program had become institutionalized by the late 1960s.

This is not to suggest that inflation was not a problem in the 1970s; indeed, it seemed to have become chronic as a result of the two global oil crises and the government drive in the capital-intensive heavy and chemical industries. Nevertheless, the government did not reapply the instrument of direct control

15. Song Dae-Hee, *op.cit.*

16. Whang In-Joung, "Ideological Premise of Economic Planning in Korea", *Korean Journal of Public Administration*, vol. 8, no. 1 (April 1970), pp. 186-190 (in Korean).

over prices, but rather introduced a stabilization program as part of its structural adjustment policy in the 1980s. The stabilization program aims at fostering the market mechanism by institutionalizing fair trade, gradually liberalizing imports, and eliminating all types of subsidies.

Another regulatory action was the enactment of the Anti-Monopoly and Fair Trade Act of 1980. In a mixed economy, the government cannot directly control every economic activity, especially during the early stage of development when supply bottlenecks tend to create inflationary pressures. The need for government restrictions on, or impediments to, free trade and market competition had been raised periodically and intermittently identified since 1964. The first draft of the Fair Trade Act was abandoned by the government due to strong objections from the private sector. The government's proposed Monopoly Regulation Act of 1967 and later the Fair Trade Act of 1971 were both rejected by the National Assembly. Although the Price Stabilization and Fair Trade Act was finally passed by the National Assembly in 1975, it was not implemented until 1980.

The major objectives of the current Act are to ensure free market competition and protect consumers by controlling the abuse of monopolistic or oligopolistic power and prohibiting the formation of new companies wielding such power.¹⁷ Government intervention in favor of fair trade practices has been reinforced on various occasions in the 1980s.

Inducement Policies. Inducement by the government has not been provided in the form of coercive power, as in the case of regulation, nor financial power, as with the national budget and public enterprises, but rather through fiscal, monetary, and foreign exchange policies.

Fiscal Policies: Indirect taxes have become the major source of government revenue. In 1961 the share of direct taxes in total domestic taxes was 34 per cent. This proportion increased to 50 per cent around 1970 due to rapid economic growth but declined in the 1970s because of the increase in the gasoline consumption tax rate during the first oil shock and again later because of the value-added tax introduced in 1977. Thus, during 1980-1985, direct taxes accounted on average for only 33 per cent of total domestic taxes. The greater reliance on indirect taxes expressed the limited scope of the government's efforts to improve income redistribution, as the tax burden imposed by indirect taxes was somewhat regressive in nature.

The government has applied various tax incentives and disincentives such as preferential depreciation, subsidies, tax exemptions and holidays for the promotion of certain industries, and differential commodity tax rates to discourage consumption of luxury commodities. A real estate speculation control tax was also introduced in 1968.

17. Lee Kyu-uck, "Some Issues in the Control of Unfair Business Practices in Korea", *The Korea Development Review*, vol. 2, no. 1 (March 1980), pp. 14-33 (in Korean).

In spite of these measures, the government was initially able to play only a limited role in domestic capital formation because of the limited tax base at the early stages of development and the rigidity of budgetary outlays for national defense, education, government officials' salaries, and other legally determined expenditures.¹⁸

Monetary Policy: In a market economy, both monetary and foreign exchange policies are determined by market forces with some degree of influence by the central bank. In the case of the Republic of Korea, however, the government played a significant role in the formulation of monetary and foreign exchange policies over the 1962-1986 period.

In the early 1960s interest rates on savings offered by banks were unrealistically low, obstructing the flow of private funds into the official financial market and, thus, fueling inflationary pressure. This, in turn, hampered efficient allocation of financial resources. On the other hand, the low lending rates encouraged business firms to become excessively dependent on bank funds and to indulge in speculative activities.

In order to curtail these malfunctions, the Interest Realization Program was implemented between 1965 and 1968. Under this program, high interest rates were applied to both bank deposits and loans. For instance, the interest rate on one-year time deposit increased from 15 per cent per annum to 30 per cent and the rate for general loans from 16 per cent to 26 per cent. The program was an inverse margin system between deposits and loans.¹⁹ Although it discouraged productive activities temporarily, the program contributed significantly to the rationalization of financial institutions and of their role in the mobilization and allocation of domestic capital. There was a tremendous increase in the amount of deposits, in favor of long-term savings deposits, and the lending capacity of financial institutions increased to meet the demand for productive investment.

Interest rates gradually decreased from 1968, however, to the 14-15 per cent levels of 1973-1974. Despite an increase in interest rates to 18 per cent in 1979, the banks in the late 1970s could not absorb the excess money supply created by the rapid increase in foreign exchange earnings from construction projects in the Middle East. The relatively low interest rates again distorted the demand for bank loans and encouraged speculation in real estate, thus perpetuating inflation. The lack of policy adaptability under the government-determined interest rate system, especially during the late 1970s, can be viewed as a failure. Hence, the consistently generous funding to the export-oriented industries throughout the 1970s and the system of differentiated interest rates became major targets of the structural adjustment of the 1980s. Interest rates have thus been lowered

18. The inflexible expenses in 1981 were equivalent to 78 per cent of the total general government budget. See Chong-Kee Park, "Government Finance and Budgetary Issues", *The Korea Development Review*, vol. 3, no. 4 (Winter 1981), p. 17 (in Korean). The problem of rigidity in national budgeting still remains unsolved.

19. Economic Planning Board, *Economic Survey 1966* (Seoul, 1967), p. 125.

to 10 per cent per annum for fixed deposits, and all preferential rates were abolished.

Foreign Exchange Policy: The low level of the foreign exchange rate during the 1950s and 1960s was not viewed as a problem at the time, since a considerable portion of foreign exchange requirements was met by foreign aid. In the mid-1960s, however, the shortage of foreign exchange became a serious issue as the demand for financing for development projects increased. From then onwards, the exchange rate was viewed as a critical policy instrument. Hence, a managed float system was introduced in 1965 to reflect the market forces as closely as possible in determining the exchange rate. This reform encouraged exports, on the one hand, and discouraged imports, on the other, particularly as the government generally adjusted the foreign exchange rate whenever needed to promote exports. In the late 1970s, however, the government failed to heed market forces and delayed a necessary devaluation of the won for some five years until 1980. Although the relatively lower rate of foreign exchange lightened the financial burden on business by decreasing real principal and interest payments on foreign loans, it discouraged merchandise exports. The problem was not apparent because of the inflow of foreign exchange earnings from overseas construction projects. Nevertheless, the government soon had to provide other forms of tax and financial incentives to export industries, which eventually distorted the financial structures of these firms as well as resource allocation at the national level.

Conclusions

The role government plays in the national economy and its choice of instruments depend on the pattern of interaction between the polity and the economy. Interaction takes place not necessarily in the context of competition over resources but rather in the context of complementarity for economic development as a whole. In this process, government as an agent of polity tries to influence the private sector for economic development by utilizing its own financial resources and state power as instruments. In so doing, the government uses these instruments either directly or indirectly to create the desired policy mix.

Through the process of such interaction, the Korean government played its role in promoting economic development with a mixture of diverse policy measures. This policy mix consisted of the complementary use of finance and power as instruments for intervention in the private sector, as well as of the option between direct and indirect government control over business. The policy mix was affected also by the response of the private sector, which stemmed in turn from that sector's market power and entrepreneurship. Hence, critical assessment of the market situation is clearly a basis of the policy mix of the

government in optimizing its role in economic development. The style of the political leadership and the degree of legitimacy in exercising government influence are additional factors shaping the government's role.

As reflected in its development philosophy, economic doctrines, management style, and organizational apparatus, the Korean government has played an entrepreneurial role by introducing policy innovations and promoting risk-taking business and by fostering and protecting capitalistic operations through the market mechanism.

Interestingly enough, while the government's role over the past decades has been quite impressive from an overall perspective, the major part of economic growth has occurred in the private sector rather than in the public sector. The economy is now largely led by an experienced group of private entrepreneurs. They are well-seasoned professionals, all having long experience with introducing new products, adopting efficient processes, and forging into new markets.

The relationship between the government and the private sector has recently undergone fundamental changes designed to improve international competitiveness of the nation's exports. Instead of preferential loan packages, efforts are currently being made to encourage technological innovation through research and development activities. The shift in the government's role has been a necessary response to the changing international economic environment in which export markets are becoming more restrictive, due to the protectionism of the advanced countries, and overseas resources are becoming increasingly inaccessible. The government intends to reduce the relative size of the public sector to strengthen the market mechanisms, thus enabling the private sector to play a more dominant role in the economy. The economy has grown in size and sophistication to the point where the government can no longer depend heavily on planning. Hence, private initiative is being fostered by normalizing market functions, on the one hand, and by minimizing government intervention, on the other.

In the 1960s and 1970s the government continued to make use of financial instruments in intervening in the national economy. However, the government is now moving both to reduce the use of financial instruments and to relinquish direct control over the economy in favor of indirect control. Specifically, this shift in the role of the government calls for the liberalization of financial institutions, specifically through increased autonomy of banking institutions, internationalization of the capital market, promotion of direct foreign investment,²⁰ gradual liberalization of imports, elimination of subsidies, and promotion of market forces under the Fair Trade Act. Limitation of the government's role is aimed primarily at promoting and fostering the market mechanism through fair and free competition in resource allocation. Hence, public enterprises have a role in cases that clearly require financial commitment from the government.

20. Kim Kihwan, *The Korean Economy: Past Performance, Current Reforms, and Future Prospects* (Seoul: Korea Development Institute, 1984), p. 32.

Lastly, it is worth noting that the Korean government's role in economic development has felt few ideological constraints. The "pragmatism" prevailing in the policymaking process has allowed the government to choose among all available instruments and tools in achieving the defined goals and in solving the policy problem.

The development role of the Korean government has been characterized also by the "speed and flexibility" of policy response to problems.²¹ The concentration of decision-making power allows the bureaucracy to make speedy decisions and to flexibly adjust the direction of current policies when a major problem arises. The government quietly prescribes a solution to a problem, constantly monitors its implementation progress, and adjusts the policy direction as necessary. This approach can work only when the bureaucracy is under the control of highly motivated and competent administrators.

21. Jones and SaKong, *op. cit.*, pp. 30-40, and Whang In-Joung, "Korea's Economic Management for Structural Adjustment in the 1980s", paper presented at the World Bank and Korea Development Institute Working Party Meeting on Structural Adjustment in NICs: Lessons from Korea, Washington, D.C., 19-20 June 1986.

The Role of Public Enterprises in India

Amiya K. Bagchi*

The public sector is just as much a part of the society it is supposed to serve as the private sector. In India, the public sector not only profoundly influences the economy and society, but it is also the outcome of social and political processes that are outside the control of a single group or a single planning authority.

In general, two different approaches have been adopted to the public sector. One is a macroeconomic approach, where the impact of the public sector on the expenditure and income flows of the economy, on its balance of payments with the external world and on the aggregate economic growth prospects are considered. Another approach entails consideration of the performance of individual public enterprises from a managerial point of view. Sometimes, the impact of a public enterprise or a group of public enterprises on a particular sector is considered. For example, in India studies have been made of the performance of State Electricity Boards relating to their generation and distribution of electricity. It is possible further to study the linkage of the supply of electricity or energy in general to the working of the economy. Similarly, the role of the railways, which are publicly owned and managed in India, in providing transport services can be studied.

However, apart from carrying out such macroeconomic, microeconomic and sectoral studies of the public sector or its components, it is necessary to look at the interrelationships between public enterprises and the society in which they operate. It is now well recognized that even in the area of management, different styles are in vogue in different countries. The Japanese style of management has often been contrasted to the American style, as have the British and Japanese styles of relating senior to junior management and management to workers.

Within the public sector there are public enterprises which are envisaged to provide goods and services to the market and yet obey certain social norms which would normally make a dent into private profitability. In these cases, it is necessary to explicitly take account of social and political variables to understand the nature of the extra-managerial compulsions under which the public enterprises operate and the extra-market opportunities they can utilize to protect

* Professor of Economics, Centre for Studies in Social Sciences, Calcutta.

or aggrandize themselves. A study of such processes which occupy a middle ground between macroeconomic, microeconomic and sectoral analysis and takes into account variables other than those relating to prices, inputs, outputs and profits faced or realized by a firm may be referred to as "mesolevel" analysis for want of a better term.

Explicit and Implicit Objectives of Public Sector Enterprises

At different times, new public sector enterprises have been created or formed by socializing or nationalizing private organizations for different purposes and for different publicly stated reasons. Among the earliest reasons for the takeover of private enterprises was the prevention of a drain to the public exchequer caused by firms to which a subsidy was being paid by the latter. The nationalization of the major private railways even under the British administration in India was motivated by such considerations. There were other associated reasons and precedents from other countries: the desire to regulate the activities of railways in the public interest as perceived by the British administration and the precedent set in England at the heyday of public control of the railways.

Another aim was to create enterprises which were expected to contribute to economic growth by generating income and employment and by preventing avoidable leakage of incomes abroad in the form of imports. Such enterprises were considered to be especially needed where the private sector would not venture because the financial stakes were too high and the prospects of private earnings were not too bright (because of long gestation lags and the probability of fluctuations in the returns profiles) and yet the growth-inducing potential of investment was judged to be large. There were, of course, investment projects in which the private sector might have been willing to invest but only at a price the government was unwilling to concede as well as projects such as for defense production in which the government did not want the entry of private interests. In most cases, firms were expected to use technologies which would be new or up-to-date from the start, but they were rarely seen as agents of technological change.

The Government of India established other public sector organizations such as technological and scientific research laboratories to generate new technologies. However, the way such organizations would be linked to actual producing firms was never concretely visualized, or if so, the linkages were rarely forged. Moreover, the accountability of the laboratories to universities or other institutions of higher learning, or to the public in general, was never spelled out. Apart from serving in the capacity for which they were designed, such institutions tend to serve as ornamental pieces to be displayed before foreigners and as centers for the absorption of scientific manpower. When questions of prestige or a possible use at some unspecified future date loom large, cost-benefit analyses become fraught with a high degree of indeterminacy.

In India, there are very great differences in the financial and legal powers of the central and state governments which are entrusted with many functions in the quasi-federal political structure. By and large, the major growth-inducing function, especially in industry, has been envisaged to be in the domain of the central government. Yet, since independence in 1947, many state governments have tried to contribute their share in the form of nominally autonomous corporations or departmental enterprises to the stimulation of the growth process. There have been several waves of such state government-sponsored public enterprises. Virtually every state has its transport corporation, agro-industries corporation, mining development corporation and electronics development corporation. The logic of gap-filling, first used by the central government, has been further extended by state governments.

Public sector enterprises were also created for the regulation and coordination of certain private activities, and for channeling them through certain well-defined sluices. State trading corporations, especially those engaged in the export of specific product groups, fall into this category. Such organizations are also expected to provide a dual protection to exporters: they help them realize the best prices irrespective of their size, and in cases where Indian exporters face state trading organizations of other countries, especially those of the Soviet bloc, the Indian state trading firms act as bargaining agents on behalf of the exporters.

Designated public enterprises have also been entrusted with various social distribution or public service responsibilities. Thus, for example, the Food Corporation of India manages the stocks of foodgrains the government buys from farmers and then releases for distribution to consumers who are covered by the scheme of food rationing. Operations of such enterprises combined with government price support programs, on the one hand, and food rationing schemes, on the other, involve various kinds of income redistribution. But as this example illustrates, the redistribution is not uniformly from the rich to the poor. For it is the rich farmers with large farm surpluses to sell who benefit most from the farm price support schemes and it is the residents of urban areas who mostly benefit from the food rationing schemes.¹

In the past, public enterprises have also been used as resource mobilizers. Such a function is easily performed when the product benefits from inflation, especially sectoral inflation that raises the price of the product more than the general price level. Many publicly owned oil refineries or oil fields which started as symbols of nationalism and instruments for staunching the outflow of resources through prices charged or profits earned by foreign enterprises, became money spinners when the price of oil surged upward. In India, the prices of energy resources owned by the government have been increased repeatedly as a means of correcting "price distortions" and as instruments for mobilizing government revenues.

1. Ashok Mitra, *Terms of Trade and Class Relations* (Calcutta: Rupa & Co., 1979); and A. Janvry and K. Subbarao, *Agricultural Price Policy and Income Distribution in India* (Delhi: Oxford University Press, 1986).

Finally, the government has, on a number of occasions, taken over the management and ownership of existing private firms. The reasons given for such takeovers have varied. In a number of cases, it has been the demonstration that private profit has violated norms of public interest. Thus, private life insurance companies were judged to be seriously infringing the interests of the insured.² In the same way, the major commercial banks were nationalized later on since it was judged that they were lending too much to large business houses engaged in commerce and industry and not enough to small enterprises and farmers. In the case of coal mines, private mine-owners were regarded, in general, to be too shortsighted in their mining methods and damaging the future of mining and the environment in the mining areas. But many of the private mines were also plainly unprofitable. The government takeover of private firms in order to protect jobs and the activities they carried out became a regular feature in the 1970s, especially in the textile and engineering industries. In almost all these cases, the private owners were paid a generous compensation.

Public enterprises obviously differ from private firms in the constraints that are imposed upon them and in the kind of administrative and political control exercised over them. Correspondingly, they also have opportunities for survival which are not available to private firms. Private firms have to effect an exit if they remain unprofitable far too long, except when they are used as loss-leaders by a conglomerate controlling them. In contrast, it is supposed that in the political arena giving voice is an alternative to exit.³ Public enterprises are much more like political entities in the sense that managers, workers and even suppliers of inputs can bring pressure upon administrative departments, politicians and political parties in their strategies of survival, and more rarely, of expansion. Once created, public enterprises are looked upon as secure providers of employment, and any scheme that threatens the role of the public sector in maintaining employment in the organized sector is likely to be resisted by the workers, management and politicians alike.

The reasons for assigning a privileged role to public enterprises and the public sector in general in a country such as India are not difficult to unravel. The growth of employment in the formal or organized sector has been much slower than the growth of national income, and levels of open unemployment especially in urban areas have increased enormously.

Over the last decade, not only has employment in the public sector increased faster than in the organized private sector, but also employment in organizations engaged in producing goods and services has expanded faster than employment

2. In literature emanating from the United States, it is the failure of the market to protect the interest of the insurer, and derivatively, of the honest insured group, that has been the center of attention. See, for example, K.J. Arrow, "Uncertainty and the Welfare Economics of Medical Care", *American Economic Review*, vol. 53 (1963); and M.V. Pauly, "Overinsurance and Public Provision of Insurance: The Roles of Moral Hazard and Adverse Selection", *Quarterly Journal of Economics*, vol. 88 (1974).

3. A.O. Hirschman, *Exit, Voice and Loyalty: Responses to Decline in Firms, Organizations and States* (Cambridge, Mass.: Harvard University Press, 1970), chapters 1-4; and A.O. Hirschman, *Essays in Trespassing, Economics to Politics and Beyond* (Cambridge: Cambridge University Press, 1981), chapters 9-10.

in the private sector (see Table 1). Part of the increase in the employment in public enterprises is undoubtedly due to the nationalization of "sick" private firms, i.e., firms that were saved from liquidation by government takeover.

In a country which does not have schemes of unemployment insurance or social insurance except those enjoyed by employees in the organized sector, any activity that promises additional employment is regarded as good, so long as the sponsoring authority has finance available to set the activity in train. Once it is set in train, anybody connected with it acquires a right to speak or act in its defense.

The demand for expansion of the public sector is especially strong in areas which do not otherwise have prospects of attracting vigorous private sector activity. However, the central government, although promulgating various schemes for the development of "backward areas", has been less and less responsive to the demands of those areas in which public enterprises have not done very well, or in which, for various reasons, the political benefits of locating enterprises in other areas concerned are not judged to be very direct.

The location of large public or, for that matter, private enterprises in backward areas does not always generate strong multiplier effects for the local economy or lead to a significant direct expansion of jobs for the local people. Much of the expenditure is for machinery, and inputs purchased from outside the backward area and the qualifications required for senior and junior

Table 1: **Employment in Organized Sectors in India, 1976 and 1985**
(^{'000})

Sector	1976	1985
Public Sector		
Central government undertakings	3,047	3,342
State government undertakings	4,897	6,299
Others	5,377	7,659
Total	13,322	17,300
Of which: economic enterprises	6,683	9,151
Private Sector	6,844	7,322

Source: Government of India, Ministry of Finance, *Economic Survey 1986-87* (New Delhi, 1987). It is curious that the statistics on employment include both economic and non-economic entities under "industry".

management are not generally found among the local people (they would not belong to a "backward area" if it were not so). In spite of this, there is normally a strong demand for locating large public sector projects in such areas, for even a once-for-all increase in direct and indirect employment and local incomes is felt to be better than none.

Before the question whether there are better ways of providing direct and indirect employment than by setting up public enterprises which often need subsidies from the public exchequer is discussed, it would be appropriate to look at other pressures to which public enterprises are subjected. There was and there remains a general perception that the public sector should provide the general infrastructure to promote and encourage private industrial activity. Thus, not only were electricity generation, water supply and road-building made part of the public sector activities but also the products of such activities were generally sold at prices lower than the demand warranted, and very often at less than the cost of production. The concept of providing inputs for making private activity profitable was often extended to such items as coal, pig iron, and steel ingots. Moreover, public sector plants were expected to supply items which private enterprises opted out of, so that paradoxically, as private sector profits increased (or their losses declined), the profits of corresponding (not merely "competing") public sector plants tended to decline (or their losses increased) for the same reason.⁴

In most of these cases, the benefits accruing to the private sector cannot be graded according to requirements of development or redistribution. However, if there are some beneficiaries who are organized enough or strong enough, such a blunt instrument as underpricing of public goods and services continues to be wielded in the name of the pursuit of public interest, although no useful purpose is served by using it.

The public sector may also be directly assigned the task of redistributing consumer goods or loans when the private sector refuses to serve such ends. In the Indian case, cotton textile mills were for a long time directed to produce cheap cloth as part of the government's design of curbing the growth of the mill sector in the interest of the so-called decentralized sector (handlooms and powerlooms) and of providing cheap cloth to the poor (in fact, anybody who cared to buy coarse cotton fabrics). Naturally, private cotton mills increasingly evaded this task as tastes and price structures shifted in favor of finer cotton goods and fabrics made of synthetic material. When the government took over "sick" textile mills, the latter were saddled with the task of supplying cheap cotton

4. See Ramprasad Sengupta, "Technical Change in Public Sector Steel Industry", *Economic and Political Weekly* (4 February 1984); and D.N. Ghosh, "Indian Steel Industry: Need for New Approach", *Economic and Political Weekly* (14 April 1984). India, of course, is not alone in expecting public sector firms to supply items the private sector has opted out of because of their absolute or relative unprofitability. For the parallel experience of the Argentine public sector oil company, see J. Lucangeli, *Technical Behaviour of Argentine Public Enterprises: The Case of Yacimientos Petrolíferos Fiscales*, Working Paper, WEP 2-22/WP 164 (Geneva: International Labour Office, World Employment Programme Research, April 1986).

fabrics to the sales outlets for such cloth, and this became one of the factors that further worsened the financial situation of the mills.

Competitive Methods of Attaining Public Sector Goals

In all these cases, the question can be asked as to whether there are more direct and effective ways of providing subsidies for production and distribution. If the government directly subsidized either the distribution of basic clothing among ordinary people, or the inputs for, say, private engineering firms, the cost of such redistributive or promotional measures would be evident. However, such "transparency" may be unwelcome to a democratically elected government, which would not want the responsibility of clothing all the poor people by selling subsidized fabrics. It might be argued that so long as there is cheap clothing in selected outlets, and so long as there is a large number of such outlets, the buyers identify themselves as poor by purchasing at these outlets. Of course, there is the uncomfortable fact that many buyers are traders or garment makers who use these fabrics for business rather than for consumption. Also, there are many poor people who do not know the existence of these special outlets or do not have access to them. The government minimizes the perceived cost of alleviating poverty to clothing by ignoring such problems. Apart from the cost involved, this might set up various conflicts in the working of the market mechanism and hinder efficiency and growth according to the perception of government policymakers.⁵ Again, subsidizing private engineering firms down the line would be too expensive. At the same time, designing criteria for choosing among engineering firms that might be judged fair and politically acceptable would be very difficult.

It is not only because of such problems of feasibility that indirect action through public enterprises is often preferred to more direct, transparent policies that involve expenditure under the government budgetary account. In many cases, the transaction costs involved in giving direct subsidies can be almost as high as the indirect costs associated with disbursement of largesse through public enterprises. Moreover, the ideology of attaining redistribution through the market has latterly curbed the government's enthusiasm for such measures. Curiously, while direct expenditures on such schemes as food for work programs or public distribution of foodgrains and other necessities have been discouraged, and subsidizing loss-making public enterprises has come under an obloquy, expenditure on government administration has surged well ahead of growth in gross national product (GNP). This development has made a large dent in the contribution of the government to both national saving and real capital formation (see Table 2).

5. We are not here concerned as to whether this perception is always right and whether it is possible to design a public distribution system which would still allow the market mechanism to perform a role in improving both static and dynamic efficiency.

Table 2: Net Domestic Saving and Net Saving of the Public Sector
as Percentages of Net National Product (NNP)
(at current prices)

Year	Net Domestic Saving/NNP	Net Saving of the Public Sector/NNP
1970-71	12.1	2.1
1975-76	15.5	3.6
1979-80	17.8	3.4
1980-81	17.5	2.2
1981-82	17.5	3.4
1982-83	16.9	3.0
1983-84	16.4	1.8
1984-85	16.2	1.1
1985-86	..	0.6

.. = not available.

Source: Reserve Bank of India, *Report on Currency and Finance 1985-86*, vol. 2 (Bombay: Reserve Bank of India, 1986), Statement Nos. 3 and 9.

The pressure on government resources has, in turn, tended to render a selected group of public enterprises much more important as sources of revenue. These are enterprises which provide facilities and services such as energy and transport. The government has repeatedly increased the price of oil, coal and electricity to increase its revenues. (A subsidiary argument has been that increasing their prices would induce more energy-efficient technologies, but there is little evidence to suggest that price increases have induced any considerable economies in the use of energy.) The revenue increases have not redounded as a net gain to the government since the latter is a large consumer of energy and transport services. Increases in administered prices have been found to be responsible for a large portion of the increase in prices in India in recent years.⁶

In spite of repeated increases in administered prices, however, the contribution of the public sector to net domestic saving — which itself has stagnated

6. Reserve Bank of India, *Annual Report of the Reserve Bank of India for 1983-1984* (Bombay, 1984); and S.P. Gupta and T.G. Srinivasan, "Inflation and Role of Administered Prices", *Economic and Political Weekly* (8 September 1984).

at around 16 per cent as a proportion of national income — has declined drastically in recent years (see Table 2). As indicated earlier, this has been the result mainly of increases in expenditures on administration and defense and security services. Such a development weakens the power of the administrative departments and politicians to exercise effective control over public enterprises. The managers of the latter argue that if the government can provide so generously to patently unproductive enterprises, why should public enterprises which are presumed to produce goods and services with a high dose of social benefit be deprived of such largesse?

The multiplicity of goals put before public enterprises and the multiple points at which pressure can be put on and through public enterprises for deriving various kinds of private and political benefits ensure that most of the recommendations for reforming the management style and improving the accountability of public enterprises remain a dead letter. For example, the government had not made more than a half-hearted effort to implement the recommendations of the report of the high-power committee (the Sengupta Committee) which studied the working of public enterprises in India in 1984.⁷

Public Sector Research and Some of Its Problems

The multiplicity of pulls and pressures also acts to defeat stated objectives of government research laboratories and public enterprises in achieving self-reliance. The Government of India, as mentioned already, set up a chain of scientific and technological research laboratories in order that usable innovations and local adaptations in a range of industrial technologies might be effected. From the very beginning these laboratories were not connected either through formal organizational links or through contractual arrangements with producing firms. There were attempts from time to time to establish links with departments of the central government, but this often multiplied the problems of bureaucratic obstruction of decisions and use of innovations rather than induced an atmosphere of brisk inventiveness in the laboratories or their ready commercial exploitation. In this regard, the producing firms, whether in the private or public sectors, largely followed their own paths. They looked for quick, relatively riskless gains to be obtained out of the induction of foreign technology, in however partial a manner, rather than make a bid for achieving dominance through technological competition with their own innovations and adaptation. Recently, a committee appointed by the government (Abid Hussain Committee) examined the operations of the laboratories under the control of the Council of Scientific and Industrial Research (CSIR) and confirmed the earlier impression

7. *Report of the Committee of Review Policy for Public Enterprises* (New Delhi: Ministry of Finance, December 1984); and Prajapati Trivedi, "Sengupta Report on Public Enterprises: Eloquent Fuzziness at Its Best", *Economic and Political Weekly* (30 May 1987).

that in general little original or relevant research and development (R&D) emerged from these laboratories.⁸

Effecting linkages with producing organizations and reversal of an earlier policy of lopping off R&D set-ups of public enterprises and converting them into shiftless consulting firms are moves in the right direction. However, active scientific and technological laboratories also need firm linkages with universities and other institutions of higher education. Many of the best scientists are isolated in these research laboratories and soon lose their motivation for creative work. At the same time, the students in most universities receive poor training without the benefit of good teaching or adequately equipped laboratories and libraries. A purely market-oriented approach to research and development may perform badly in India where learning has conferred both prestige and poverty: if it is only riches that government policymakers wish to offer scientists, they could well be engaged in a Sisyphean effort. Where most activities are partly insulated from market competition by various social devices, R&D activities in scientific laboratories may not induce healthy competition or tight (and responsible?) bureaucratic control.

I have argued elsewhere that both the public and private sectors have fared badly in respect of R&D expenditures.⁹ The reasons for this are complex. They have as much to do with the general business environment, including the time horizon of both big and large firms, their inability to agree on long-term strategies of growth, the risk averse strategies of big firms, including public enterprises, as with specific government policies which imbue long-term planning with an unnecessary degree of uncertainty.

More specifically, the tendency of the government to encourage and of businessmen to pursue a strategy of inducting foreign technology primarily through borrowing without ensuring their effective absorption has deprived imported technology of most of its alleged benefits in terms of increased productivity or increased export competitiveness. Surveys by the Reserve Bank of India of firms with foreign collaboration have led to the conclusion that foreign collaboration agreements, whether in the private or in the public sector, have been much more potent instruments of increasing India's import-dependence in critical sectors than of improving international competitiveness.¹⁰

Public sector units were often singled out as special carriers of the objective of attaining self-reliance in technology. However, a summary of the figures

8. *Report of the CSIR Review Committee: Towards a New Perspective* (New Delhi: Council of Scientific and Industrial Research, December 1986).

9. A.K. Bagchi, "Public Sector Industry and the Quest for Self-reliance in India", *Economic and Political Weekly*, Annual Number (1982); A.K. Bagchi, *The Economics of Business and the Business of Economics*, Purushotamdas Thakurdas Memorial Lecture (Bombay: Indian Institute of Bankers, 1984); and A.K. Bagchi, *The Quest for Self-reliance in a World of Flux*, G.L. Mehta Lecture (1986), reprinted in *Facets of India's Development* (Bombay: Industrial Credit and Investment Corporation of India, 1986). See also A.K. Bagchi, *Public Intervention and Industrial Restructuring in China, India and South Korea* (New Delhi: ILO-ARTEP, 1987), chapter 5.

10. Reserve Bank of India, *Foreign Collaboration in Indian Industry: Fourth Survey Report*, 1985 (Bombay, 1985); and A.K. Bagchi, "Foreign Collaboration in Indian Industry", *Economic and Political Weekly*, vol. 21 (24 May 1986).

available from the latest survey of foreign collaboration agreements by the Reserve Bank of India suggests that they are almost as wasteful of imported resources as private sector firms (see Table 3).

If change in value-added as a proportion of gross output can be considered as an index of productivity growth or efficiency of resource use, the situation indicated by Table 3 is disappointing. The burgeoning growth of imports, even while exports stagnated for public enterprises with foreign collaboration agreements, is more disconcerting.

Table 3: **Indian Government Companies with Foreign Collaboration Agreements: Value of Production, Value-added, Exports and Imports, 1977-1981**

	1977-1978	1978-1979	1979-1980	1980-1981
1. Value of total production (Rs million)	11,827	12,386	15,155	19,052
2. Value-added (Rs million)	2,737	2,845	2,926	3,304
3. Percentage of (2) to (1)	23.1	23.0	19.3	17.3
4. Exports (Rs million)	435	504	562	329
5. Imports (Rs million)	2,770	3,967	5,668	6,193

Source: A.K. Bagchi, "Foreign Collaboration in Indian Industry", *Economic and Political Weekly* (24 May 1986). The figures are based on Reserve Bank of India, *Foreign Collaboration in Indian Industry: Fourth Foreign Collaboration Survey* (Bombay, 1985).

Concluding Observations

The approach of the Government of India to the reform of public enterprises and government research has been generally managerial. But it is well known that there is no single managerial style. Among the rich countries themselves, American-style multidivision enterprises with their hierarchical claims of flow of information and delegation of authority from the top have had to compete with Japanese-style organizations where the hierarchy pertains to control rather than coordination of activities between different divisions in the factory. In many European countries, the multidivision enterprises have been a postwar growth. There are also major differences in the degree of training imparted to workers and managers: in Britain it has taken many a hard knock for the ascendancy of the gentleman-manager to be curbed. The managerial style a country can

sustain depends very much on the social organization. A mesolevel approach to a closer analysis of the dependence of managerial styles can help us understand the viability of different managerial styles in different countries.

In the Indian case, the managerial styles range from Japanese factories with their turnkey managerial arrangements (without, however, the workers' participation in quality control and relative independence of the junior management to take floor-level decisions) to colonial derelicts where the management style is a combination of slapdash authority, shortsighted decision making and general slovenliness. The public enterprises, with a few exceptions, are far too much affected by a bureaucratic style of functioning with both information and decisions being clogged by various counterpressures. In order to improve their functioning, it may not be enough to introduce a greater degree of financial rationality or accountability to higher authorities. A far greater degree of involvement of workers and junior management in the actual decision-making process, and interaction with the external environment, especially the suppliers of inputs and consumers of the products, may be also necessary. The government has had a program of encouraging ancillaries through public enterprises. This program will not get off the ground unless the junior management is given greater responsibilities and a more thoroughgoing training and extension program for small enterprises is implemented. Much of the research carried out in the CSIR laboratories is supposed to feed small enterprises. However, the linkages that should have been built between the research laboratories, their extension organizations and the actual producers have not been properly forged.¹¹

There cannot be any international code of conduct for public enterprises for the reason that they operate in very different societies with very different social structures and norms of behavior. The mesolevel approach may direct us to the reasons why public enterprises behave so differently in different societies.

11. For a case study, see U.K. Bhattacharya, *Engineering Research Institute, Technology Development and Economic Growth: A Case Study*, Occasional Paper, no. 86 (Calcutta: Centre for Studies in Social Sciences, October 1986).

The Asian Development Bank is an international development finance institution owned by member governments. It was established in 1966 for the purpose of lending funds and providing technical assistance to developing member countries in the Asian and Pacific region, and for promoting investment and fostering economic growth in the region.

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